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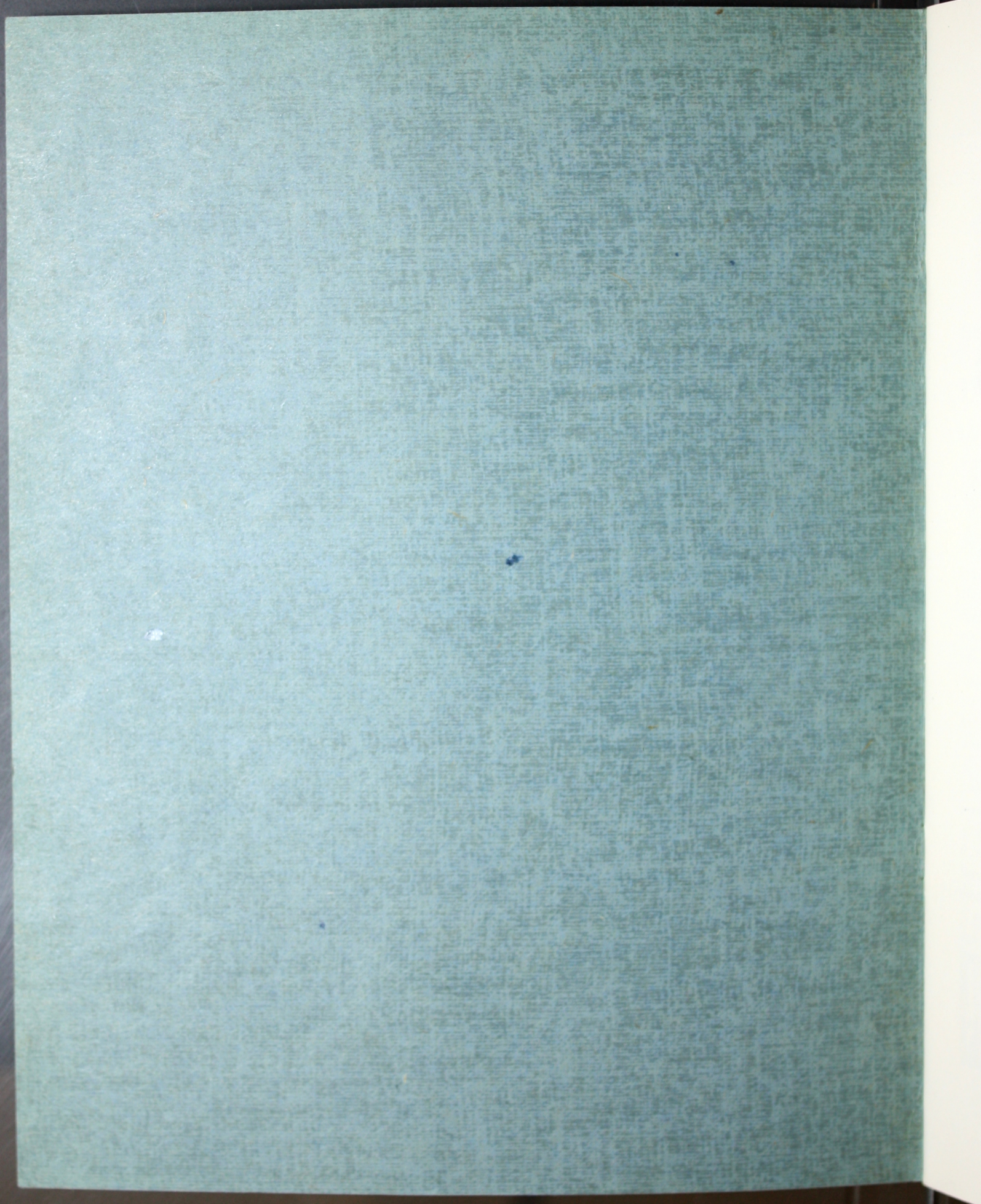
JUN 30 1947

STAYNEW

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DOLLINGER CORPORATION

ROCHESTER 3, NEW YORK



STAYNEW FILTERS

FOR AIR

OTHER GASES

LIQUIDS

CHEMICALS

SPECIAL APPLICATIONS

DOLLINGER CORPORATION

11 Centre Park • Rochester 3, N. Y.

ONE PRODUCT—FILTERS

ONE QUALITY—THE HIGHEST

**... a Dollinger promise
made and kept for over 25 years**

In 1920, Lewis L. Dollinger began the manufacture of filters. His first product was an air intake filter, one of the first of its kind, designed to protect the wearing parts of internal combustion engines. Dollinger called it the "Protectomotor" since it was primarily designed to protect automobile motors.

Meeting a definite need and performing a real service, the "Protectomotor" was a success from the start. From this pioneer filter, it was a logical step to the designing of a complete line of filters to meet every industrial ventilation and air conditioning need. Another descriptive term "Staynew" was coined which, in a single word explained the object of the filters—to preserve newness by keeping out dirt, dust and soot, etc. The heart of the original "Protectomotor" filter was its Radial Fin design of filtering element or insert which provided a maximum of active filtering area in relation to its physical dimensions. This still ranks as one of the outstanding engineering contributions to the advancement of industrial filtration.

Today the Dollinger Corporation is one of the oldest in its field, offering a complete line of filters for every purpose, with adequate manufacturing facilities and the most modern equipment plus a large research laboratory. The following pages present a brief description of the Staynew Line. It is earnestly urged, however, that you utilize the advice and the counsel of Dollinger engineers and service representatives in selecting the proper filter for a particular application. Their long training and experience in solving filtration problems are at your command and available through convenient offices throughout the United States, Canada, Mexico and in many other countries.

DOLLINGER CORPORATION
11 CENTRE PARK • ROCHESTER 3, N. Y.



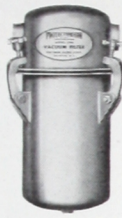
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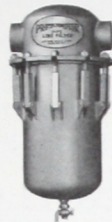
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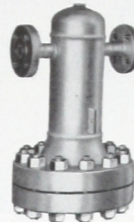
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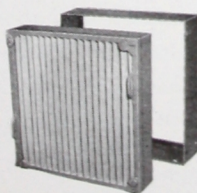
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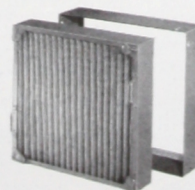
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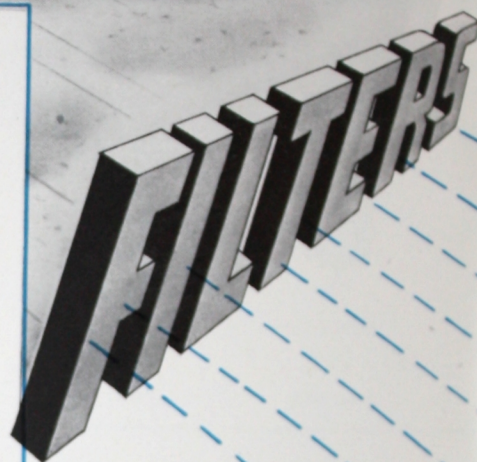


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ventilation, air conditioning filters

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A Pioneer Manufacturer of Filtering Equipment DOLLINGER CORPORATION helped build an Industry



Dirt, dust and soot have long been the enemies of man, his dwellings, his workshops and his machines. For years atmospheric and process dust (invisible and visible) have menaced health, impaired human and mechanical efficiency, damaged materials and equipment, destroyed machinery and jeopardized industrial processes. Losses caused by airborne particles are practically incalculable. Only in the last quarter of a century has the problem of dust control been given the scientific attention its seriousness warranted. Only in the last decade in fact, has air filtration been recognized as an essential, a vital factor in modern living and modern industry. No longer is man reconciled to his "peck of dirt," no longer is he content to have the health of his employees, the purity or precision of his products, the efficiency of his machinery and the profits of his business endangered by air-borne dust, by dirt, grit, soot and other enemies of natural and industrial processes.

American inventiveness, science and research have fought and won the battle for clean air. Pioneer firms like Dollinger have built the filter industry, have made it an important American industry, with a type and kind of filter for virtually every need—human or mechanical. Today clean air is both practical and possible through modern filtering equipment and in its design, its application and its usefulness the Dollinger Corporation is proud to have played its part.



LARGE FILTER
AREA IN
SMALL SPACE

PIPELINE FILTERS

Help solve the many operating problems encountered in applying air and other gases both under pressure and vacuum to various industrial operations—air-operated tools, air chucks, punch presses, sand-blasting, vacuum-packing, and other processes. Special models are available for the protection of public utility and industrial power plants against service interruptions due to the failure of pneumatically operated combustion controls.

AIR INTAKE FILTERS

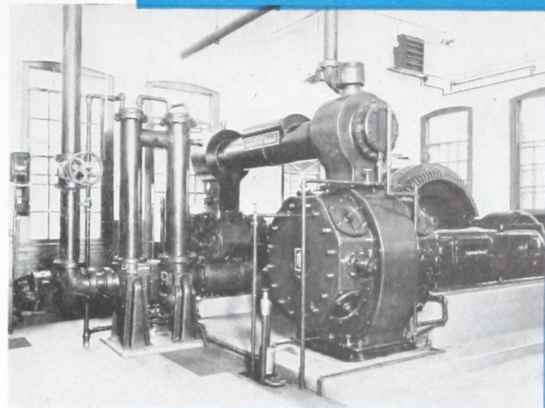
Provide positive protection for internal combustion engines, compressors, blowers, motors, generators etc., insuring sustained efficiency and safeguarding against abrasive dust particles drawn in through air intakes which score cylinder walls and wear out bearings and commutators. Special silencer types insure quiet operation as well as cleanliness.

LIQUID FILTERS

Remove rust, pipe scale and other impurities from liquids such as water, oils, chemicals, solvents, condensate, etc. They are ideal for application on machine tools, to handle coolants, and for the protection of hydraulic controls; and for fuel oil injection systems on diesel engines. Staynew Liquid Filters remove the finest particles with a minimum loss of pressure. They are available in both pressure and vacuum types.

VENTILATION FILTERS

No modern ventilating or air conditioning system is complete without adequate air filters. Staynew filters include models to meet practically every requirement. They comprise dry and viscous type panels, and automatic self-cleaning oil bath designs. They are recommended and specified by many prominent engineers and architects for offices and public buildings, institutions, and for general installation in industrial plants for the protection of products, processes, and the health and comfort of employees.



Staynew

Double Action Pipeline Filters assure sustained, trouble-free operation

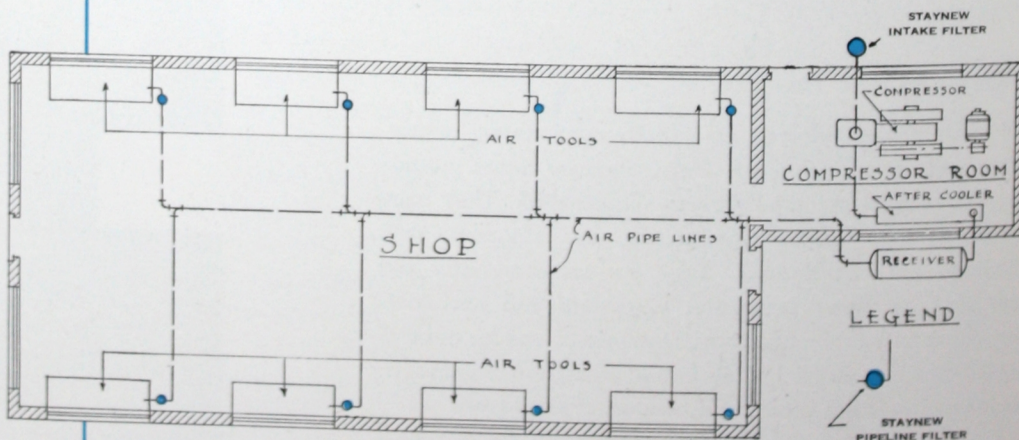
Staynew Pipeline Filters are specifically designed to meet the demands of industry for pressure units capable of continuous operation at high load factors. Inexpensive, quickly installed and easily maintained, these filters keep air operated or controlled devices and processes free from dust, pipe scale, rust, dirt and condensate.

The importance of these filters grows as manufacturing tolerances are decreased, vanes and pistons are closer-fitted, orifices become smaller, and machines in general are precision built.

The exclusive Double-Action Staynew design has made these filters the most popular in their field. As a result of this basic design the filters, first, mechanically eliminate a large portion of all oil, water and the heavier dirt particles; then by means of a large area, Radial Fin filter insert, the finer air-borne material is removed. This Double Action principle materially reduces the load on the filtering element or insert, eliminating the necessity of frequent cleaning, resulting in higher overall filter efficiency and lower maintenance.

Thus a single filter serves a two-fold purpose—the removal of condensed oil and water and the elimination of dust, pipe scale and other dirt particles.

TYPICAL LAYOUT
COMPRESSED AIR
SYSTEM SHOWING
PREFERRED LOCATION
OF PIPELINE FILTERS



MECHA
Deflector
or gas to
and dirt to
ing and
high veloc
liquid and
are deposi

Quickly cle
filtering are
losses to a
saving hor
of tools and

operation at High Load Factors



**DOUBLE
ACTION
PRINCIPLE**

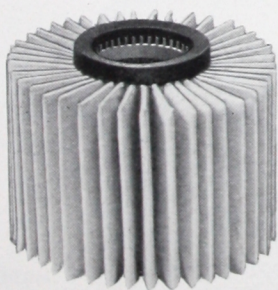
MECHANICAL SEPARATION

Deflector cup directs flow of air or gas together with water, oil and dirt to the walls of the housing and thence downward at high velocity into the base where liquid and heavier dirt particles are deposited.



FILTRATION

The air or other gas, having been mechanically cleaned of liquid and heavier dirt particles, then rises at low velocity through the Radial Finned Filtering element or insert which removes the lighter airborne material.



RADIAL FIN INSERT

Quickly cleaned—readily replaced—provides extremely large active filtering area. This insert makes possible low air velocities keeping line losses to a minimum. Thus it helps maintain proper air pressure, saving horsepower, and assuring continuous, trouble free operation of tools and processes.

Especially for...

AIR-OPERATED TOOLS

PNEUMATIC CONTROLS

AIR CHUCKS

PUNCH PRESSES

SAND BLAST

INDUSTRIAL PROCESSES

... WHEREVER

AIR AND OTHER GASES

MUST BE KEPT CLEAN

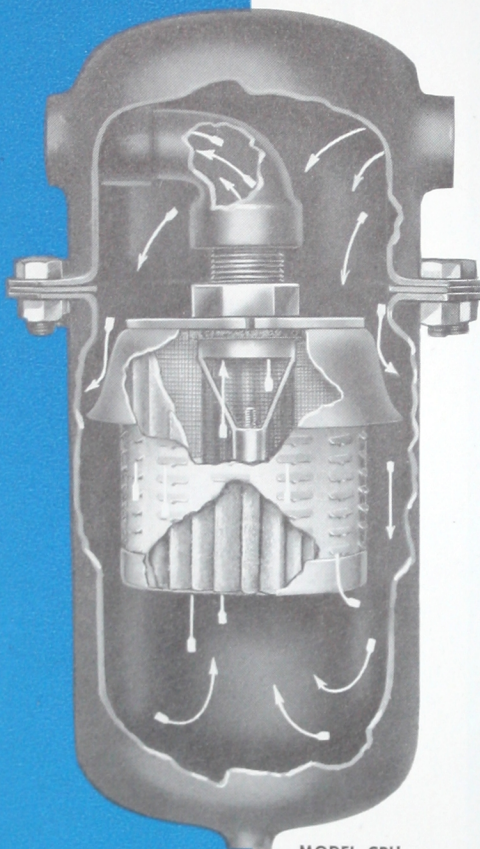
AND DRY

Staynew Pipeline Filter

Model CPH

(BOLTED TYPE)

Model CPH is a high grade pressure type filter designed for installation in horizontal pipe lines handling air or other gases. Maximum working pressure 125 lbs. gauge. They effectively remove moisture, dust, dirt, pipe scale and other foreign matter, but are not intended to remove water or oil vapor (a true gas). Double-action principle assures high efficiency. The standard filtering medium will remove dust particles down to three or four microns (.000156") in size. Special media can be supplied for finer filtration and for temperatures up to 600°F. Models are also available for handling corrosive gases.



MODEL CPH
Cutaway



MODEL CPH

TABLE OF SIZES					
Model	*Capacity C.F.M. Actual Free Air	Inlet and Outlet Connections Inches	Approximate Overall Dimensions—Inches		Approximate Shipping Weight Lbs.
			Diameter	Length	
STANDARD BOLTED HEAD CONSTRUCTION					
CPH-03	50	$\frac{1}{8}$	$3\frac{1}{2}$	$5\frac{1}{2}$	3
CPH-02	60	$\frac{1}{4}$	$4\frac{3}{4}$	6	5
CPH-01	125	$\frac{1}{2}$	$5\frac{3}{4}$	$9\frac{3}{4}$	7
CPH-0	160	$\frac{3}{4}$	7	13	10
CPH-1	285	1	8	$15\frac{1}{2}$	14
CPH-2	380	$1\frac{1}{2}$	$9\frac{1}{4}$	17	19
CPH-4	670	2	$10\frac{1}{4}$	$20\frac{1}{4}$	36
CPH-5	1250	3	$12\frac{1}{4}$	25	56
CPH-6	1600	4	$19\frac{1}{2}$	35	305
CPH-7	2200	5	$23\frac{1}{2}$	43	340
CPH-7A	2800	6	$26\frac{1}{2}$	$43\frac{1}{2}$	450
CPH-8	3800	8	$30\frac{1}{2}$	44	550

*Capacities listed are free air at 80 lbs. gauge pressure.
Standard Connections are Female pipe threads.

*Capacities listed are free air at 80 lbs. gauge pressure.
Standard Connections are Female pipe threads.



MODEL CPH
Large Capacity

Staynew Pipeline Filter

Model CPHS

(SWING BOLT TYPE)

The Model CPHS, is similar to the Model CPH in all respects except that it has swing bolts instead of the bolted head construction. When more frequent inspection is required, this feature makes selection of the Model CPHS advisable, as the housing may be quickly removed to expose the entire filter assembly by merely loosening and disengaging the swing bolts. It is recommended that both the Model CPH and CPHS filters be installed in branch lines as near the point of air usage as possible to prevent further condensation of liquids beyond or on the clean side of the filter. Like the CPH it is designed for a maximum working pressure of 125 lbs. gauge.

TABLE OF SIZES

TABLE OF SIZES					
Model	*Capacity C.F.M. Actual Free Air	Inlet and Outlet Connections Inches	Approximate Overall Dimensions—Inches		Approximate Shipping Weight Lbs.
			Diameter	Length	
SWING BOLT HEAD CONSTRUCTION					
CPHS-03	50	1/8	4	5 1/2	4
CPHS-02	60	1/4	5 1/4	6	8
CPHS-01	125	1/2	7	9 3/4	14
CPHS-0	160	3/4	8 1/4	13	18
CPHS-1	285	1	9 1/2	15 1/2	26
CPHS-2	380	1 1/2	10 3/4	17	35
CPHS-4	670	2	12	20 1/4	52
CPHS-5	1250	3	14 1/4	25	82

*Capacities listed are free air at 80 lbs. gauge pressure.
Standard Connections are Female pipe threads.

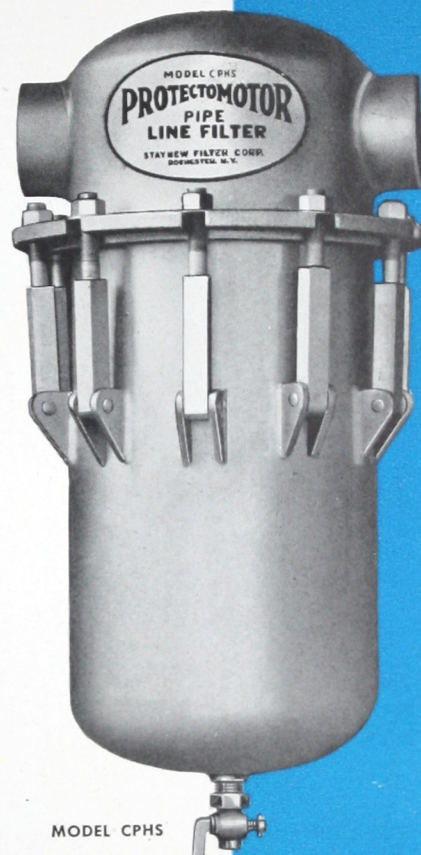
Model CP (VERTICAL TYPE)

A Staynew filter with the same general operating characteristics and designed for the same working pressures as the horizontal types but fitted with bottom inlet and top outlet openings for installation on vertical lines where space is at a premium.

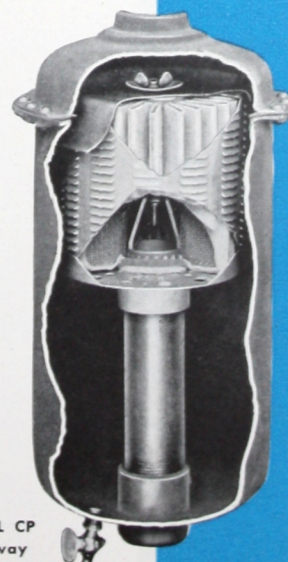
TABLE OF SIZES

Model	*Capacity C.F.M. Actual Free Air	Inlet and Outlet Connections Inches	Approximate Overall Dimensions Inches		Approximate Shipping Weight Lbs.
			Diameter	Length	
CP-03	50	1/8	3 1/2	5 1/2	2 1/2
CP-02	60	1/4	4 3/4	9 1/2	4
CP-01	125	1/2	5 3/4	10 3/4	6
CP-0	160	3/4	7	11 3/4	8
CP-1	285	1	8	13	12
CP-2	380	1 1/2	9 1/4	15 3/4	17
CP-4	670	2	10 1/4	18	27
CP-5	1250	3	12 1/4	22	45
CP-6	1600	4	19 1/2	34	250
CP-7	2200	5	23 1/2	38	290
CP-7A	2800	6	26 1/2	40	375
CP-8	3800	8	30 1/2	42	435

*Capacities listed are Free Air at 80 lbs. gauge pressure.
Standard connections are Female pipe threads.



MODEL CPHS



MODEL CP
Cutaway

Staynew Pipeline Filter

Model CVH

(VACUUM TYPE)

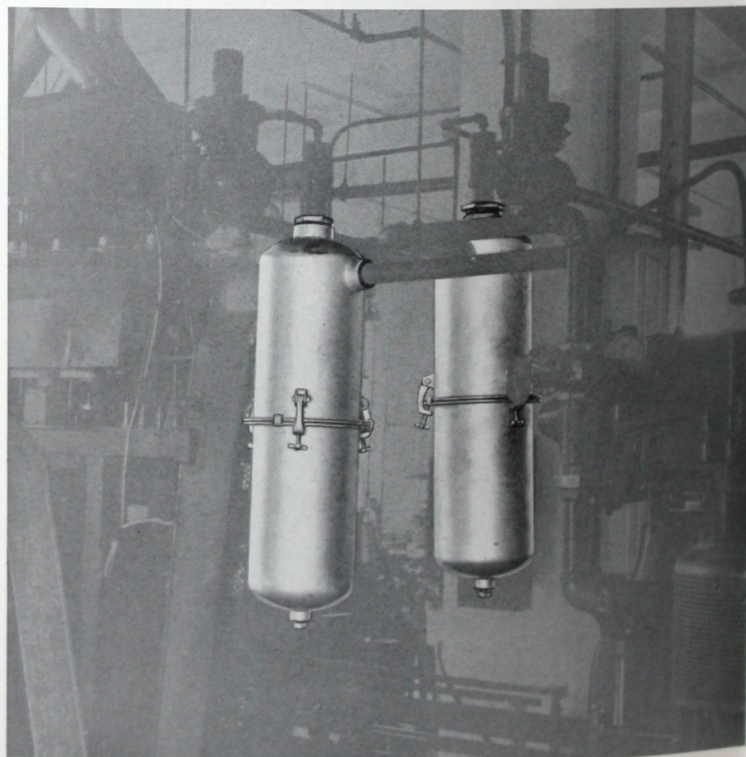


MODEL CVH

Staynew Model CVH filters are designed for installation wherever vacuum processes are used. They assure positive protection for both rotary and reciprocating vacuum pumps by preventing all foreign matter, as a result of carryover from the vacuum process or corrosion in the pipe line itself, from being drawn into the pump. They are, for example, a most important part of the equipment used in the vacuum sealing of coffee, canned meats and other food products.

Staynew Model CVH filters are also widely used in laboratory work, in the processing of magnesium producing dolomite rock, and in the commercial treatment of certain clays and many other applications of similar nature.

The Model CVH filters are fitted with extra large Radial Fin Inserts in proportion to their capacity ratings. This

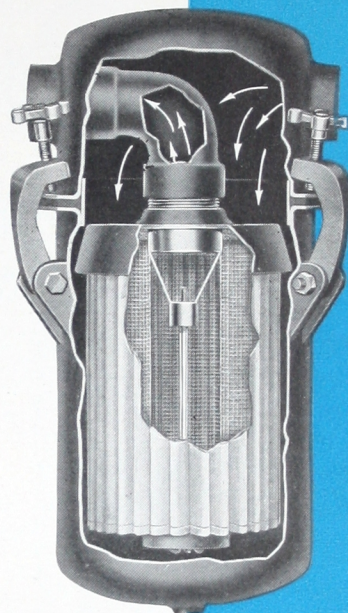


MODEL CVH on a vacuum packing machine.

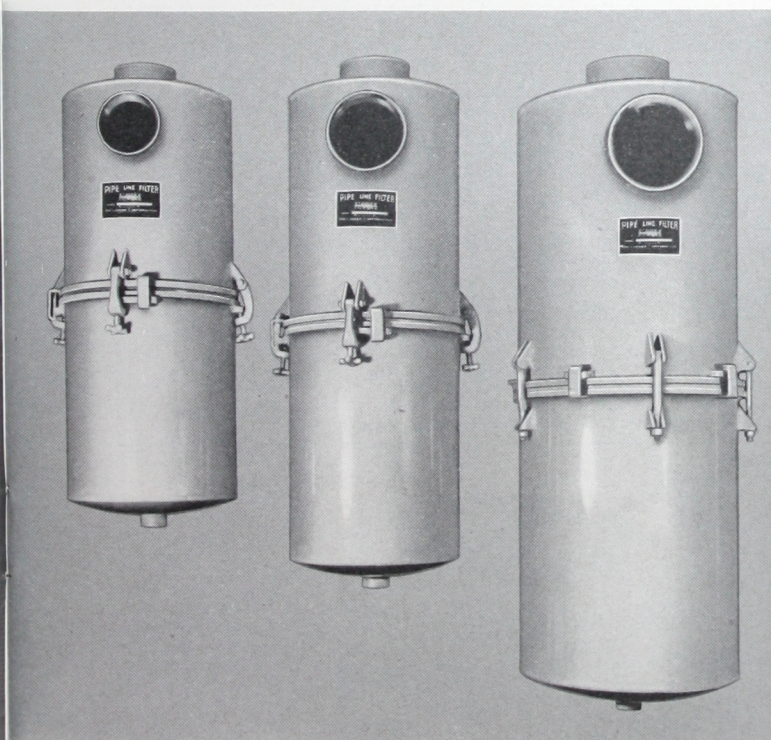
provides a maximum of active filtering area thus insuring the continuance of the initially low resistance and reducing maintenance to an absolute minimum.

TABLE OF SIZES								
Model	*Max Capacity C.F.M. Free Air	Active Filtr'g Area Sq. Ft.	No. In-serts Req'd	Pipe Conn. Inches		Approx. Overall-Dimen. Inches		Approx. Shpp'g Wt. Lbs.
				Inlet	Outlet	Diam.	Height	
CVH-1-4	60	3.5	1	1	1	8	15½	25
CVH-2-4A	80	4.9	1	1½	1½	9¼	17	34
CVH-4-5	125	7.8	1	2	2	10¼	19¼	49
CVH-5	175	10.0	1	3	3	13	25	83
CVH-6	250	16.0	1	4	4	14	32	285
CVH-6A	375	24.0	1	5	5	14	38	325
CVH-7	675	40.5	1	6	6	18	41	400
CVH-7A	825	54.0	1	8	8	20	46	500

Standard connections are Female pipe threads.
 *Maximum capacity ratings based on free air or gas at atmospheric pressure (0 lbs. gauge).

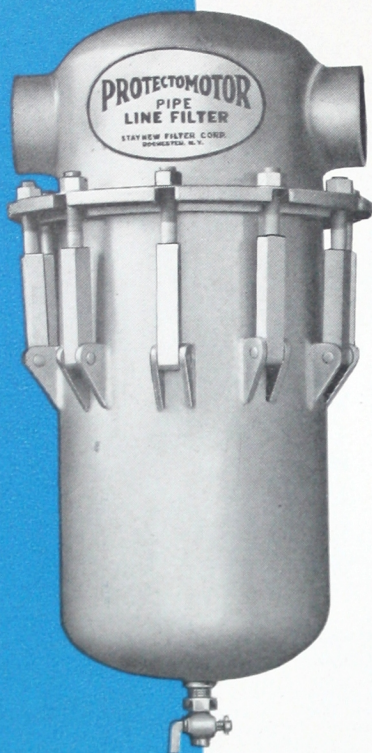


MODEL CVH
Cutaway



Three Large Capacity Vacuum Filters.

Staynew Pipeline Filter Model AAPH-AAPHS



MODEL AAPHS

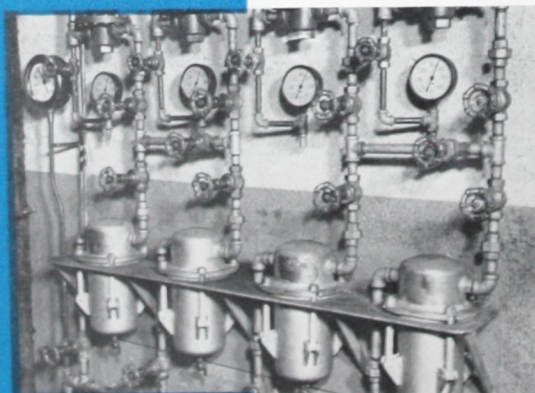
Some manufacturing processes and certain compressed air operated or controlled mechanical equipment require the removal of the last traces of oil and water from the compressed air. Staynew Models AAPH and AAPHS Absorption Filters have been designed to meet this specific requirement. They have proven themselves on thousands of installations and are particularly well suited for the protection of pneumatically operated combustion control apparatus. Their exceptional efficiency is obtained by utilization of both mechanical separation and absorption. They differ from other Staynew pipe line filter models in that a series of flat rings or discs of fine texture felt held under uniform compression take the place of the conventional radial finned insert. After a large portion of the oil and water together with the larger dirt particles are deposited in the bottom of the filter housing, the air then passes through the discs which absorb the last traces of oil and moisture.

TABLE OF SIZES

Model	Inlet and Outlet Connections Inches	*Capacity C.F.M. Actual Free Air	Approximate Overall Dimensions—Inches		Approx. Shpp'g Weight Lbs.
			Diameter	Length	
STANDARD BOLTED HEAD CONSTRUCTION					
AAPH-02	¼	5	4¾	7¾	6
AAPH-01	¼	7	5¾	11	7
AAPH-0	½	10	7	15	10
AAPH-1	¾	20	8	17½	14
AAPH-2	1	30	9¼	19½	19
AAPH-4	1½	50	10¼	22¾	35
AAPH-5	2	100	12¼	27½	54

Standard connections are Female pipe threads.

*Capacities listed are free air at 80 lbs. gauge pressure.



Special felt pads used as filtering medium in absorption filters.

Absorption Filters protecting pneumatically operated controls in a large central power station.

(ABSORPTION TYPE)

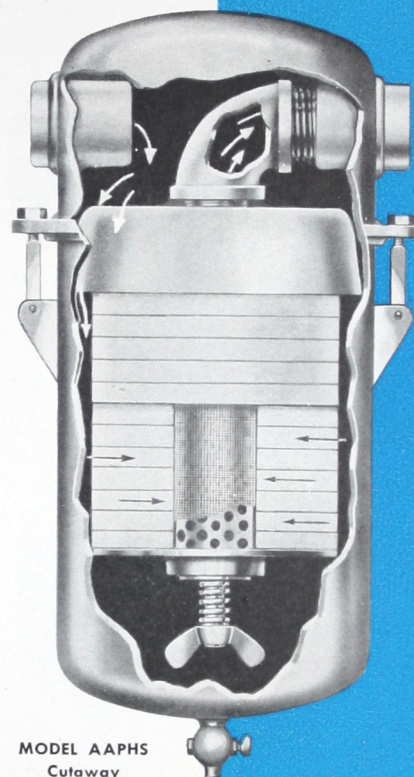
While these absorption Models can be used as the sole filter in small air systems such as used by dentists, artists, etc., they should not be applied to large systems as a primary dirt, water and oil trap. Instead, they should be used as the final stage of filtration and liquid removal, handling air which preferably has been after-cooled to aid condensation and then passed thru a Model CPH or CPHS primary filter the designs of which are shown on preceding pages of this catalog.

Model AAPH and Model AAPHS filters are of identical design except that the Model AAPH has a bolted head and the Model AAPHS has swing-bolt head construction to facilitate removal of the lower container. Like the standard pipe line filters, they are not intended to remove water or oil vapor (a true gas).

TABLE OF SIZES					
Model	Inlet and Outlet Connections Inches	*Capacity C.F.M. Actual Free Air	Approximate Overall Dimensions—Inches		Approx. Shpp'g Weight Lbs.
			Diameter	Length	
SWING BOLT HEAD CONSTRUCTION					
AAPHS-02	¼	5	5	7¾	8
AAPHS-01	¼	7	6	11	14
AAPHS-0	½	10	8	15	17
AAPHS-1	¾	20	9½	17¼	25
AAPHS-2	1	30	10½	19½	36
AAPHS-4	1 ½	50	11 ½	22¾	51
AAPHS-5	2	100	14	27 ½	79

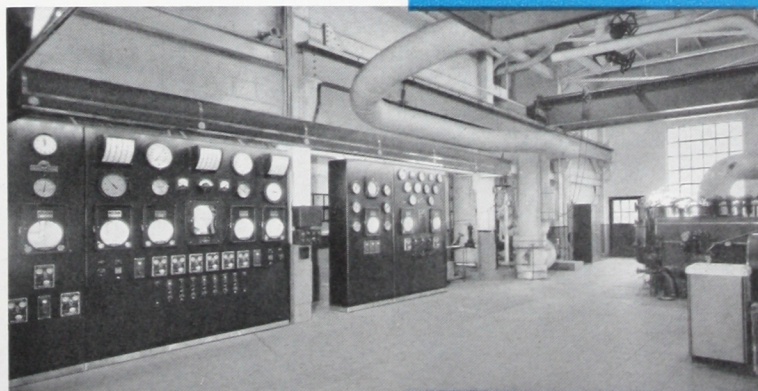
Standard connections are Female pipe threads.

*Capacities listed are free air at 80 lbs. gauge pressure.



MODEL AAPHS
Cutaway

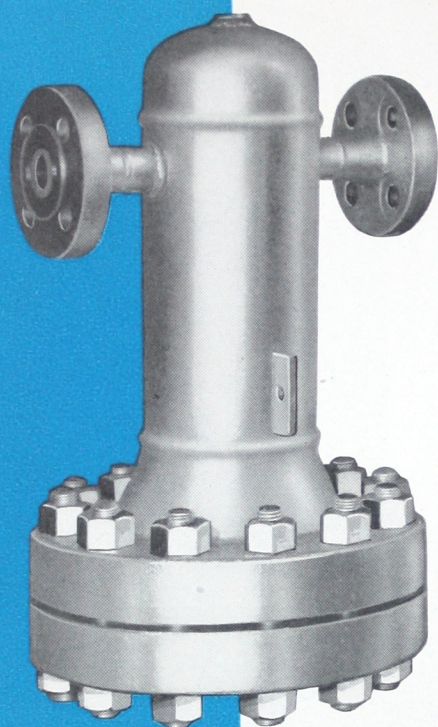
Staynew Absorption Filters protect these combustion control instruments in the plant of a large eastern Utility Company.



Staynew Pipeline Filter

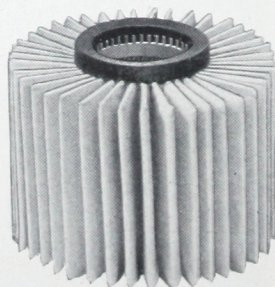
Models HPH-AHPH

(HIGH PRESSURE TYPES)

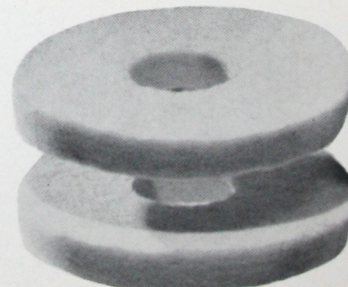


MODEL HPH—AHPH

Moisture and dirt removal from high pressure pipe lines require the use of Staynew Models HPH or AHPH filters. Standard units are available for working pressures between 125 and 2500 pounds gauge pressure. The HPH design utilizes the radial finned type of filtering element or insert similar to that used in the Model CPH, while the AHPH is fitted with the absorption type insert as is used in the Model AAPH design. Fields of application parallel those of the low pressure units. Both models utilize the double-action principle providing mechanical separation and filtration, as in the low pressure units. This assures efficient removal of both dirt particles and moisture. All high pressure models are of the horizontal type and are arranged so that they can be opened up and inspected or cleaned without disturbing high-pressure piping. All sizes and types are supplied with drain connections in the base. Their construction conforms to the A.S.A. Standard for high pressure piping. Units designed for pressures from 125 to 200 pounds gauge have seamless drawn steel shells and heads—the flanges of which are reinforced with heavy steel rings. All units designed for operation between 200 and 2500 pounds are made up of steel pipe, welding caps and forged steel flanges. Those operating up to 225 pounds have welded slip-on type body flanges, while designs for service from 225 to 2500 pounds have welding neck body flanges. Units to 200 pounds working pressure are furnished with female threaded inlet and outlet connections as standard. The higher pressure designs are supplied with either female threaded or flanged connections as required.



Radial Finned Insert as used in Model HPH Filters



Absorption Pads as used in Model AHPH Filters

TABLE OF SIZES																							
Model Filter	Pipe Connection Inches		Maximum Working Pressure Lbs. Ga. at 100° F																				
			Series-100R 200 Lbs.			Series-150 225 Lbs.			Series-300 500 Lbs.			Series-400 670 Lbs.			Series-600 1000 Lbs.			Series-900 1500 Lbs.			Series-1500 2500 Lbs.		
	Inlet	Outlet	Fl'ge Diam.	Body Diam.	Over- all Ht.	Fl'ge Diam.	Body Diam.	Over- all Ht.	Fl'ge Diam.	Body Diam.	Over- all Ht.	Fl'ge Diam.	Body Diam.	Over- all Ht.	Fl'ge Diam.	Body Diam.	Over- all Ht.	Fl'ge Diam.	Body Diam.	Over- all Ht.	Fl'ge Diam.	Body Diam.	Over- all Ht.
HPH-02	½	½																					
AHPH-02	*¼	*¼	4¾	3¼	† 8⅝	7½	3½	13¾	8¼	3½	14	8¼	3½	14¼	8¼	3½	14¼	9½	3½	16	12¼	4½	19
HPH-01	½	½																					
AHPH-01	¼	¼	6	4¼	† 10¾	9	4½	14¾	10	4½	18¾	10	4½	19⅝	10¾	4½	20	11½	4½	20¾	14¾	5⅛	22⅞
HPH-0	¾	¾																					
AHPH-0	½	½	7	5¼	† 14⅞	10	5⅞	19	11	5⅞	20⅞	11	5⅞	21½	13	5⅞	22¼	13¾	5⅞	23¼	15½	6⅝	26
HPH-1	1	1																					
AHPH-1	¾	¾	8	6¼	† 15½	11	6⅝	20½	12½	6⅝	21¼	12½	6⅝	22¼	14	6⅝	23	15	6⅝	23¾	—	—	—
HPH-1A	1½	1½																					
AHPH-1A	1	1	—	—	—	11	6⅝	22½	12½	6⅝	23	12½	6⅝	24¼	14	6⅝	25	15	6⅝	25¾	—	—	—
HPH-2	1½	1½																					
AHPH-2	1	1	9¾	7¾	† 18½	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
HPH-4	2	2																					
AHPH-4	1½	1½	10¼	8¼	† 21¾	13½	8⅝	25¼	15	8⅝	27	15	8⅝	27⅞	16½	8⅝	28¾	—	—	—	—	—	—
HPH-5	3	3																					
AHPH-5	2	2	12¼	10¼	† 27⅜	16	10¾	9⅝	17½	10¾	31	17½	10¾	32	20	10¾	33½	—	—	—	—	—	—

*These ¼ " connections are female pipe threads only.

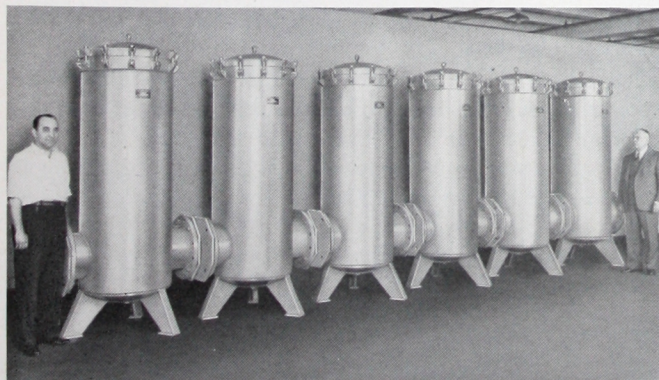
†Includes Draincock.

*These 1/4" connections are female pipe threads only.

†Includes Draincock.

Special Designs

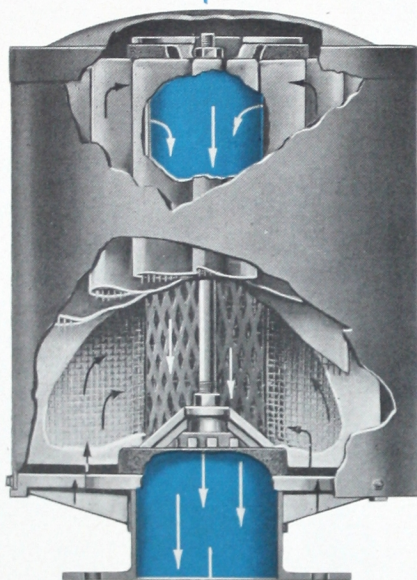
While standard designs of Staynew Pipeline filters will, for the most part, meet normal industrial needs, problems occasionally arise which require units having special characteristics. Dollinger engineers are particularly well equipped to handle these problems and stand ready to make recommendations and submit special filter designs for your consideration.



Special Large Capacity
Model CPHS Pipeline Filter

Staynew Intake Filters

Save Engine and Com



Cutaway view of Staynew Intake Air Filter showing path of air flow.



Unretouched photo of Staynew Radial Finned Inserts, one new and the other heavily coated with dirt which would have caused untold damage to engine and compressor parts.

An enemy of man, dust is equally the foe of machinery, particularly machines that "breathe" such as internal combustion engines, blowers and compressors as well as motors and generators. Dust or dirt entering through air intakes materially lessens their efficiency by causing carbon accumulation and undue wear which eventually lead to expensive shutdowns and repairs.

Staynew Filters clean this intake air removing all dust, dirt and abrasive material. All models are designed for direct application to compressor or engine air intakes or to outdoor intake piping. Foundations, supporting frames or weather louvres are not ordinarily required.

These filters are made in various sizes, ranging from 6 to 8,000 cubic feet of air per minute in single units. For handling larger air requirements, two or more units can be combined by mounting on a special manifold. A parallel range of sizes, up to and including 3800 C.F.M., combining both filtration and silencing are also available.

All models of Staynew Intake Filters are of the dry type requiring no oil coating or other filter aid and as a result are, at all times, positive in their filtering action. All utilize the Staynew Radial Fin filtering element or insert providing maximum filtering area in any given space.

The special felted filtering media used in Staynew Intake Filters combine high efficiency, long life and low resistance to air flow. The media are formed into a series of pockets which slip over, and are backed up by heavy rust-resisting fins, supported in turn, by a rigid, expanded metal central tube.

Models designed for outdoor installation are fitted with steel or aluminum weather-proof housings to protect the filtering element or insert from rain and snow. On those intended expressly for indoor use the weather housing is eliminated and the insert protected by a light louvred housing or by an expanded metal or heavy mesh screen. The design of all models provides easy access to the filtering element or insert for both inspection and cleaning.

and Compressor Repairs

Advantages of Dry Type Filters

Positive Protection—The dry type filter is the only type providing *positive* protection in that the filtering medium has the ability to remove air-borne dust particles without its being coated with some viscous or oily substance as a filter aid. Thus its ability to efficiently protect vital parts of engines and compressors does not depend upon a carefully held maintenance schedule.

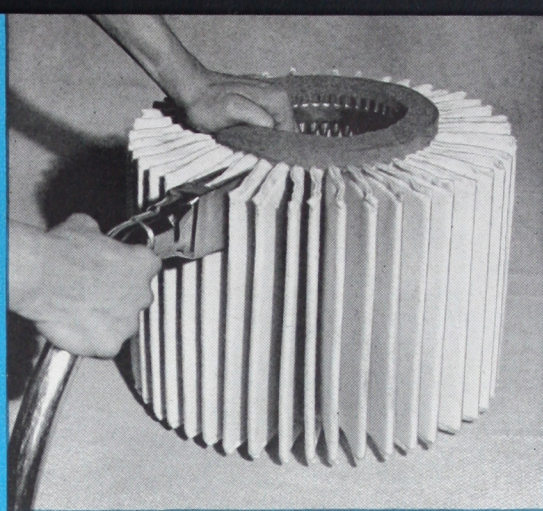
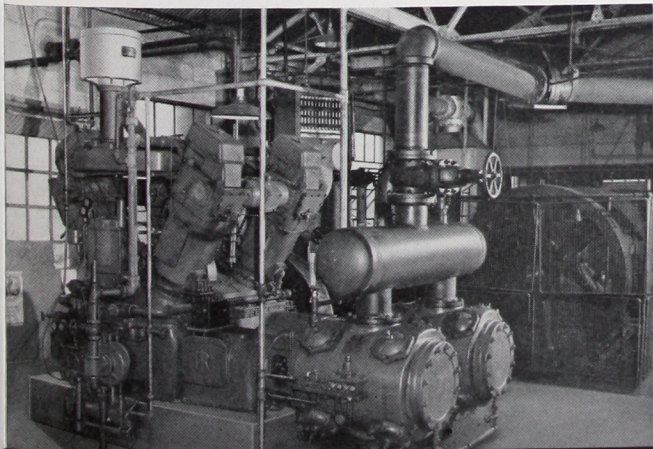
Requires Less Attention—Dry filtering medium becomes more efficient as it accumulates a coating of dust. Resistance increases very slowly with dust loading—Staynew Filters frequently operate two or more years without cleaning and under the most severe conditions only require attention every six months to a year. There are no oil reservoirs to clean and refill nor oil coatings to be renewed.

Air Velocity Not Critical—The dry filtering medium does not depend upon *high velocity* impingement of dust on oily surfaces. This characteristic permits selection of oversize filters thus keeping maintenance costs normal under the most severe operating conditions.

Not Effected by Temperature Changes—Operating efficiency remains unchanged as there is no liquid to evaporate at high or congeal at low temperatures.

No Oil Carry-Over—Dry filters are ideal for use on carbon-ring (oil-less) compressor cylinders.

Staynew Intake Air Filter protecting the power cylinders of a diesel engine-driven air compressor.



Dry type filters are best cleaned by vacuum. This specially-designed Staynew saddle type nozzle quickly restores filter to practically new condition.

Especially for...

INTERNAL COMBUSTION
ENGINES

COMPRESSORS

BLOWERS

MOTORS

GENERATORS

Battery of large capacity Staynew Silencer Filters installed at a large industrial plant.

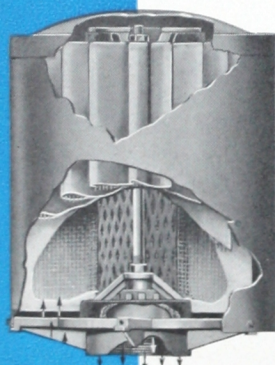


Staynew Intake Filter

Model D



MODEL D



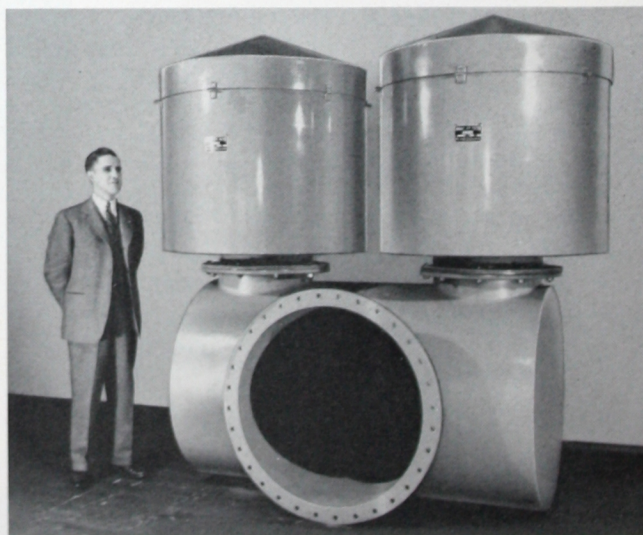
MODEL D
Cutaway



Large Capacity
MODEL D

The Model D is the most efficient intake type filter made. It is designed for direct application to compressor or engine air intakes or to outdoor intake piping without the additional expense of foundations, supporting frames or weather louvres. Standard units are installed in an upright position. The Staynew Model D Filter has a special dry-type filter medium backed up by heavy rust-resisting wire mesh supporting fins, which are in turn supported by a rigid expanded metal central tube. These are all enclosed within a heavy gauge steel weather-proof housing. The insert may be removed by simply lifting the housing cover and unscrewing the through bolt nut.

The Model D dry type filters operate with less attention than any other type. Their initially low resistance to air flow of less than $\frac{1}{2}$ " of water increases very slowly even under extreme conditions of dirt and oil-laden air. On record are many cases of continuous operation for one to two years without any attention, and with resistances still less than 5" of water. They can be safely left for long periods without servicing, since, being of the dry type, they do not require the periodic renewal of a filter-aid and are therefore inherently positive in operation. Accumulation of dust in no way impairs their efficiency but actually increases it. Their efficiency is not affected by operation in sub-zero temperatures. They are ideal for the protection of carbon ring or oil-less compressor cylinders.



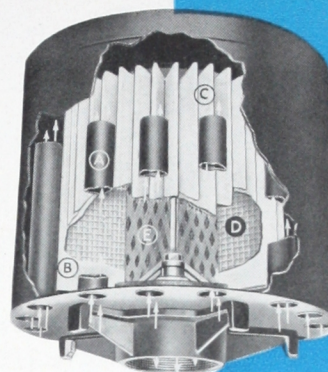
Two large capacity Silencer Filters and a manifold mounting.

Model DS SILENCER TYPE



MODEL DS

Model DS Silencer Filters have the same general features of the Model D Intake Filters, including the Staynew radial-fin filtering element, and are similarly applied and installed. They have, in addition, silencer tubes around the inside of the housing which effectively silence intake pulsations. The Model DS is ideal for installation when compressor intakes are located near offices or other areas where noise is objectionable.



MODEL DS (Cutaway)

COMBINED CHART MODELS "D" AND "DS"

Model Number D Filter or DS Silencer Filter	Max. Outlet Conn. Inches	*Max. Capacity C.F.M. P.D.	Total Active Filtering Area Sq. Ft.	Number Inserts	Approx. Dimen.—Inches—Approx. Shipping Wt.—Lbs.					
					Model D Filter			Model DS Silencer Filter		
					Diameter	Height	Weight	Diameter	Height	Weight
D or DS- 60 B- 1 1/4	1 1/4 S	60	2.5	1	5 1/2	8	3 1/2	6 1/2	8 1/2	6
D or DS- 75 B- 1 1/2	1 1/2 S	75	3.25	1	5 1/2	9 1/2	4 1/2	6 1/2	10	8
D or DS- 100 B- 2	2 S	100	4.1	1	6 1/2	10	8	7 1/2	10 1/2	11
D or DS- 150 B- 2 1/2	2 1/2 S	150	6.0	1	7 1/2	11 1/2	11	9	12	18
D or DS- 200 B- 3	3 S	200	9.2	1	9	13 1/2	15	12 1/2	14	25
D or DS- 250 B- 4	4 S	250	16.0	1	12 1/2	16	39	15 1/2	19	66
D or DS- 375 B- 4	4 S	375	24.0	1	12 1/2	21	50	15 1/2	24	77
D or DS- 500 B- 4	4 S	500	32.0	2	15 1/2	29	61	15 1/2	31	94
D or DS- 750 B- 4	4 S	750	48.0	2	15 1/2	39	77	17 1/2	41	110
D or DS- 350 B- 5	5 S	350	24.0	1	15 1/2	16	50	17 1/2	19	77
D or DS- 525 B- 5	5 S	525	36.0	1	15 1/2	21	61	19 1/2	25	99
D or DS- 700 B- 5	5 S	700	48.0	2	17 1/2	29	71	19 1/2	32	121
D or DS-1050 B- 5	5 S	1050	72.0	2	17 1/2	39	93	19 1/2	43	160
D or DS- 450 B- 6	6 S	450	27.0	1	17 1/2	17	71	19 1/2	24	116
D or DS- 675 B- 6	6 S	675	40.5	1	17 1/2	22	82	19 1/2	25	127
D or DS- 900 B- 6	6 S	900	54.0	2	19 1/2	30	99	21 1/2	34	160
D or DS-1350 B- 6	6 S	1350	81.0	2	19 1/2	40	127	21 1/2	43	193
D or DS- 550 B- 8	8 S	550	36.0	1	19 1/2	17	83	21 1/2	24	138
D or DS- 825 B- 8	8 S	825	54.0	1	19 1/2	22	116	25 1/2	30	176
D or DS-1100 B- 8	8 S	1100	72.0	2	21 1/2	34	132	25 1/2	34	204
D or DS-1650 B- 8	8 S	1650	108.0	2	21 1/2	45	171	25 1/2	44	259
D or DS- 750 B-10	10 S	750	45.0	1	21 1/2	19	110	25 1/2	30	187
D or DS-1125 B-10	10 S	1125	67.5	1	21 1/2	24	132	25 1/2	30	215
D or DS-1500 B-10	10 S	1500	90.0	2	25 1/2	34	165	25 1/2	34	242
D or DS-2250 B-10	10 S	2250	135.0	2	25 1/2	45	209	27 1/2	44	330
D or DS-1000 B-12	12 S	1000	60.0	1	25 1/2	20	139	29 1/2	29	226
D or DS-1500 B-12	12 S	1500	90.0	1	25 1/2	25	171	31 1/2	35	292
D or DS-2000 B-12	12 S	2000	120.0	2	28 1/2	36	215	31 1/2	37	358
D or DS-3000 B-12	12 S	3000	180.0	2	28 1/2	47	264	31 1/2	44	413
D or DS-1000 B-14	14 S	1000	60.0	1	25 1/2	20	149	29 1/2	29	231
D or DS-1500 B-14	14 S	1500	90.0	1	25 1/2	25	182	31 1/2	35	297
D or DS-2000 B-14	14 S	2000	120.0	2	28 1/2	36	226	31 1/2	37	363
D or DS-3000 B-14	14 S	3000	180.0	2	28 1/2	47	275	31 1/2	44	424
D or DS-3000 B-16	16 F	3000	180.0	2	32	50	308	35	50	347
D or DS-3200 B-20	20 F	3200	180.0	2	40	51 1/4	700	48	62	815
D or DS-3800 B-20	20 F	3800	204.0	2	40	52	750	54	62	875
D-4500 B-24	24 F	4500	270.0	3	48	68 1/2	800	—	—	—
D-5700 B-24	24 F	5700	306.0	3	48	68 1/2	835	—	—	—
D-8000 B-24	24 F	8000	450.0	3	48	80 1/2	900	—	—	—

*Refer to Filter Selection Chart page 43.

D—Filter Unit only.

DS—Silencer Filter Unit.

S—Female Threaded Pipe Connections.

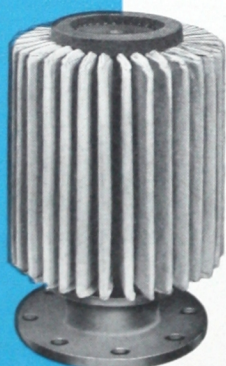
F—125 lbs. A.S.A. Flanged Pipe Connections.

Staynew Intake Filter

Model G



MODEL G



Insert and base-weather housing removed.



Base and insert supporting tube.

A low-cost filter unit for direct application to compressor or engine air intakes or to outdoor intake piping without the necessity of foundations, supporting frames, or weather louvres. High efficiency, long life and low resistance are assured by the special felted filtering medium. This medium is backed up and supported by heavy rust-resisting wire mesh supporting fins, rigid perforated metal central supporting tube and heavy-gauge steel, removable weather-proof housing. Removal of the housing completely exposes the filter insert for inspection and cleaning. Models G-32 through G-75 have either two or three inserts mounted one on top of the other. The filter housings for these models are designed so that air enters at both top and bottom for proper distribution of flow over the inserts. Standard units are arranged for upright installation, but a hanging type can be supplied in most sizes at no additional cost. Smaller sizes of this design are designated Model F. See table below.

TABLE OF SIZES

Model Filter	**Max. Cap. C.F.M. Piston Disp'l	Max. Outlet Conn. Inches	Active Filt'g Area Sq. Ft.	No. Inserts	Approx. Overall Dimen. Inches		Approx. Shpp'g Wt. Lbs.
					Diam.	Height	
F-6	60	2 -S	2.5	1	6 1/2	7	5
F-10	100	2 1/2 -S	4.1	1	7 1/2	9	7
F-15	150	3 -S	6.0	1	9	10 1/2	9
G-2	200	4 -F	8.4	1	12 1/4	14 1/4	22
G-3	300	4 -F	12.8	1	12 1/4	14 1/4	25
G-5	500	6 -F	20.0	1	17 1/2	14 1/4	47
G-6	600	8 -F	25.8	1	19 1/2	14 1/4	64
G-8	800	10 -F	32.8	1	21 1/2	14 1/4	78
G-10	1000	10 -F	45.0	1	21 1/2	14 1/4	86
G-12	1200	12 -F	52.2	1	24	14 1/4	95
G-15	1500	14 -F	65.7	1	25 1/2	18 1/4	121
G-18	1800	16 -F	73.8	1	28	18 1/4	157
G-22	2200	16 -F	90.0	1	28	18 1/4	170
G-25	2500	16 -F	101.7	1	28	18 1/4	182
G-32	3200	20 -F	134.0	2	40	52 1/4	325
G-36	3600	20 -F	148.0	2	40	52 1/4	340
G-44	4400	20 -F	180.0	2	40	52 1/4	355
G-50	5000	20 -F	204.0	2	40	53	365
G-66	6600	24 -F	270.0	3	44	67 1/2	425
G-75	7500	24 -F	306.0	3	44	67 1/2	440

S—Screwed outlet connection. Male or Female. Female connections furnished unless otherwise specified.

F—Standard 125 lbs. A.S.A. flanged outlet connection. Maximum size outlet connections, as listed, will be furnished unless otherwise specified.

**Capacities listed are maximum and should never be exceeded. Refer to filter Selection Chart page 43.

Staynew Intake Filter

Model IDR

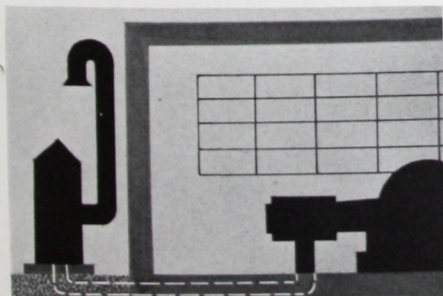
The convenience of ground level installation—the efficiency of high level air intake—*plus* all the recognized advantages of Staynew dry type filters offers a combination found *only* in the Model IDR Intake Air Filters. These filters eliminate entirely the disadvantages of installations at high levels particularly in northern climates where cold winds, snow, and ice make periodic inspections extremely unpleasant and often hazardous during considerable portions of each year. They are so constructed that installation and servicing can be performed at ground level, either indoors or outdoors as preferred, and the intake pipe extended to the most suitable elevation (see illustration below). Removal of the housing cover permits easy access to the interior of the filter for inspection. It is not necessary to disturb any piping.

TABLE OF SIZES

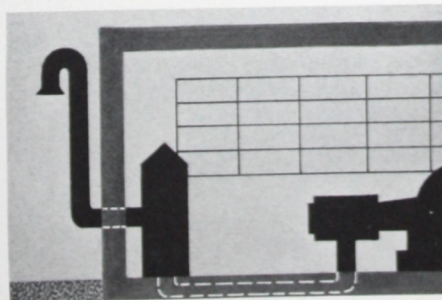
Model Filter	*Max. Cap. C.F.M. Piston Displ.	Filter Pipe Conn. Inches		Active Filter Area Sq. Ft.	No. Inserts	**Approx. Overall Dimensions Inches Solid Base Unit		Approx. Shpp'g Weight Lbs.
		Inlet	Outlet			Diam.	Height	
IDR-350	350	6	5	24.0	1	16	36	71
IDR-450	450	8	6	27.0	1	18	36	93
IDR-600	600	12	10	36.0	1	26	43	168
IDR-750	750	12	10	45.0	1	26	43	176
IDR-900	900	14	12	52.8	1	28	44	201
IDR-1100	1100	16	14	66.6	1	32	50	275
IDR-1250	1250	18	16	73.8	1	35	51	298
IDR-1500	1500	18	16	90.0	1	35	51	307
IDR-1750	1750	18	16	102.6	1	35	51	318
IDR-2200	2200	18	16	120.0	2	35	56	351
IDR-2500	2500	18	16	147.6	2	35	69	402
IDR-3200	3200	20	20	180.0	2	40	69	496
IDR-3800	3800	24	20	205.2	2	40	72	523

*Refer to Filter Selection Chart, page 43. All sizes have flanged inlet and outlet connections.

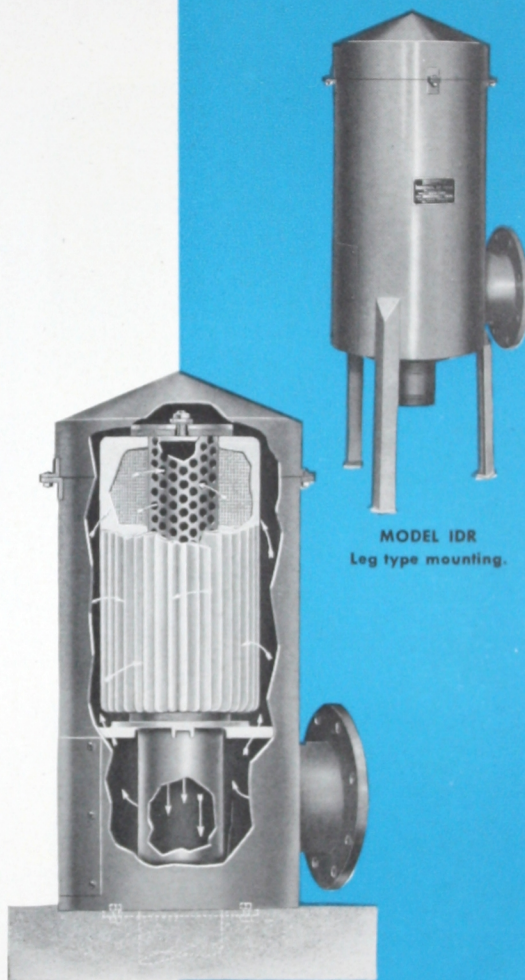
**Also furnished with leg mounting—height dimension varies with length of leg requirement. Specify type required.



Installation outside compressor station.



Installation inside compressor station.



MODEL IDR
Leg type mounting.

MODEL IDR
Cutaway—solid base
type mounting.

Staynew Intake Filter

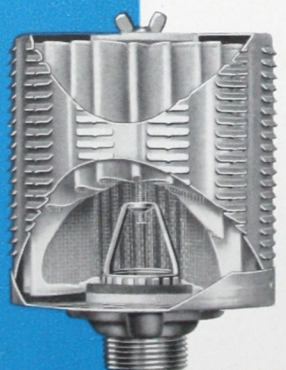
Model C



MODEL C
Upright type



MODEL C
Hanging type



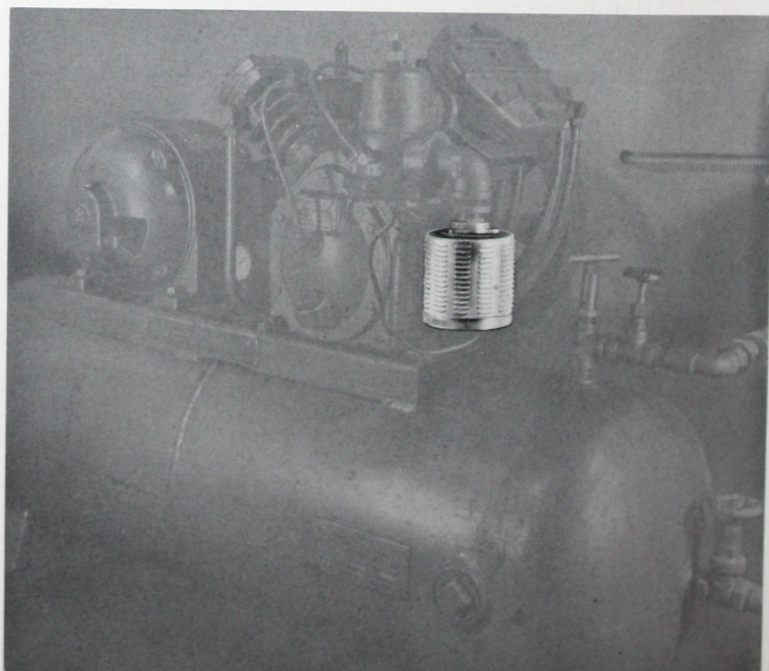
MODEL C
Cutaway

This inexpensive filter does an extremely efficient job of removing even the smallest of gritty particles from the intake air for compressors and engines. It has the same radial fin construction found in the larger Staynew Air Intake Filters, the same special felted filtering medium, and provides a surprisingly large filtering area in proportion to its space requirements. The filtering element or insert is enclosed and protected by a louvred aluminum housing. Air is drawn through these louvres and through holes in the base, thus assuring its even distribution over the entire filtering element. A single through-bolt holds the entire assembly together. Inspection and cleaning can be done quickly and easily. Both upright and hanging types are standard, as are threaded male pipe connections. Here is another Staynew intake filter that is unexcelled for efficiency and dependability.

TABLE OF SIZES

Model	Max. Outlet Size Inches	*Max. Capacity C.F.M. Piston Displ.	No. Inserts	Active Filtering Area Sq. Ft.	Approx. Overall Dimensions Inches		Approx. Shipp'g Weight Lbs.
					Diam.	Height	
C-03	1/2	6	1	0.25	2 1/2	3	1/2
C-02	3/4	9	1	0.38	2 1/2	4 5/8	3/4
C-0	1 1/4	17	1	0.75	3 1/2	4 3/4	1
C-1	1 1/4	40	1	1.67	4 1/2	5 3/4	1 1/2
C-2	1 1/2	60	1	2.50	5 1/2	7	2 1/4
C-3	1 1/2	75	1	3.25	5 1/2	8 1/2	2 3/4
C-4	2	100	1	4.10	6 3/8	9	3
C-4A	2 1/2	150	1	6.00	7 1/2	10 1/2	4 1/2
C-5	3	225	1	9.20	9	12 1/2	7

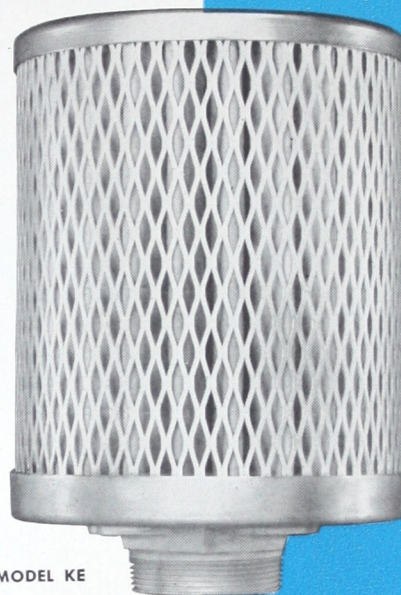
*Refer to Filter Selection Chart page 43.



Staynew Intake Filter Model KE

Staynew Model KE Filters are designed for direct application to compressor and engine air intakes. They are not fitted with weather proof housings and therefore can only be installed in sheltered locations. The design permits their being mounted in any position, that is, upright, horizontal, hanging, etc. Threaded male pipe or sleeve type connections are standard.

Model KE Filters are fitted with a special dry type felt filtering medium which is mounted on the familiar and time tested radial finned insert form. The design of this filtering element or insert embodies a new feature—a "Slip-On" type of replaceable filter medium. Spare "Slip-On" media come already crimped to correspond to the shape of the finned insert form. They may be quickly substituted for dirty or worn out ones right on the job. While cleanable, the "Slip-On" medium cost is so low that replacement is, in most cases, more economical. At normal ratings and under average conditions cleaning or replacement of the media should not be necessary oftener than every 5000 to 6000 hours of operation.

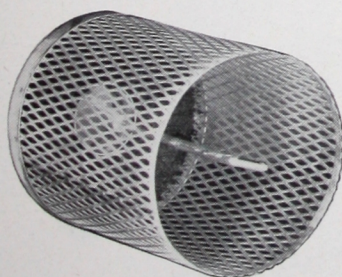


MODEL KE

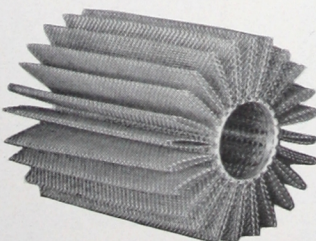
TABLE OF SIZES

Model Filter	*Max. Capacity C.F.M. P.D.	Maximum Outlet Connections—Inches		Filtering Area Sq. Ft.	Approx. Overall Dimensions Inches		Approx. Shipping Weight Lbs.
		Male Pipe Thread	Sleeve Type		Diam.	Height	
KE-01	10	1 1/4	1 1/2 I.D.	.45	3 1/2	4	3/4
KE-0	17	1 1/4	1 1/2 I.D.	.75	3 1/2	4 1/4	1
KE-1	40	1 1/4	1 1/2 I.D.	1.60	3 3/4	5 1/2	1 1/2
KE-2	60	1 1/2	1 3/4 I.D.	2.50	5 3/4	6 1/2	2 1/4
KE-4	100	2	2 I.D.	4.10	6 1/2	7 1/2	3
KE-4A	150	2 1/2	2 1/2 I.D.	6.00	7 1/2	10 1/4	4 1/2
KE-5	225	3	3 I.D.	9.20	9 1/4	12 1/4	7

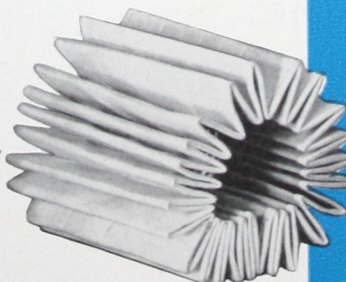
*Refer to Filter Selection Chart page 43.



1—Filter base and protecting screen.



2—Permanent insert form.



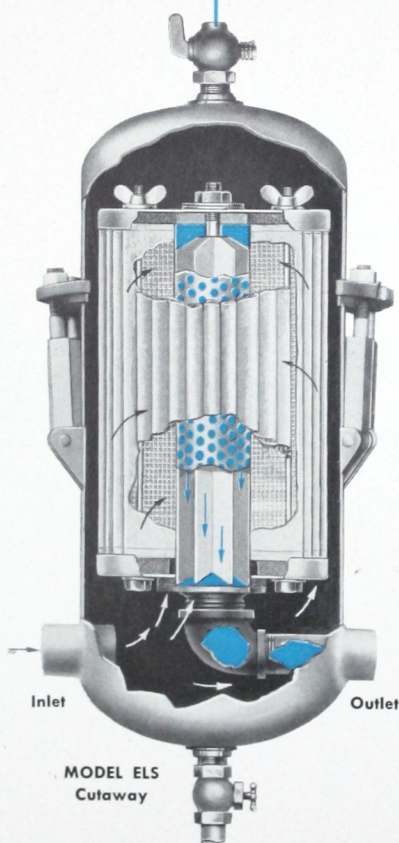
3—"Slip-On" medium.



4—Retaining cap and nut.

Staynew Liquid Filters

for Oils, Water, Chemicals,



Staynew Model ELS and SE Filters are unquestionably the most versatile of all liquid filters. Their design permits the use of the widest possible range of filtering media—not only fabrics but metallic meshes and plastics as well. In fact any type of filtering medium may be employed that is available in sheet form and can be crimped—a feature found in no other liquid filter. The insert design is such that the filtering medium can be readily replaced in the field. Most types of media are easily cleaned right on the job.

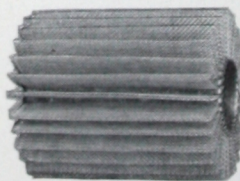
Staynew Liquid Filter models include both pressure and sump-type units. Offering a broad field of application they are specifically designed for the filtering of coolants, quenching oils, fuel oils, lubricating oils, liquid ammonia, acetone, lacquers, varnishes, high temperature solutions, condensate, drinking and process water.

The Model SE sump filters are primarily designed for mounting on the end of pump suction lines and completely submerged in the settling basin or sump from which the pump obtains its liquid.

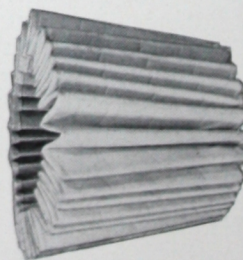
Design of the units includes a characteristic Staynew feature, the Radial Fin Insert assembly as shown. This can readily be replaced as a unit or the filtering medium itself can be



Bottom Plate and Tie Rods



Permanent Form



Slip-on Insert

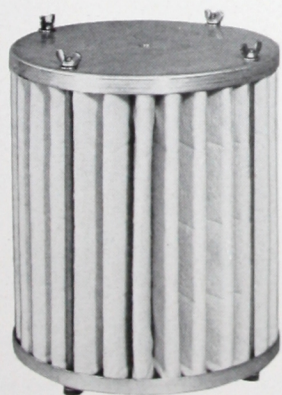


Top Plate

als, Condensate, Coolants

quickly and inexpensively removed for cleaning or replacement in the field. The insert assembly consists of top and bottom plates with gaskets and tie rods which hold the permanent form and the filtering medium (Slip-on insert) and at the same time effectively seal the ends of the fins against leakage.

The filtering medium, if a fabric is used, is attached to a layer of screen cloth and the two are crimped to correspond to the shape of the finned insert form. The medium is slipped into place over the form, the end seals put on, and the whole assembly held in place by through bolts. Spare "Slip-On" media, crimped and formed in this manner, can be easily installed on the permanent finned form when necessary. This type of construction broadens the possible field of application for these filters and enables them to solve a wide variety of filtering problems.



Radial Fin Insert Assembly



"SLIP-ON" construction is an exclusive Staynew feature which permits the filter medium to be quickly, easily and inexpensively replaced in the field . . . just slip the pre-formed filter medium over the finned insert form.

The insert assembly is easily removed. Simply loosen the swing-clamps, remove the head and a single nut. The insert assembly can then be lifted out of its housing as a unit. For continuous, uninterrupted service, a spare assembly can be kept on hand. Cleaning varies with the type of filtering medium used.

SIX ADVANTAGES OF STAYNEW LIQUID FILTERS:

1. Most versatile made.
2. Widest range of filtering media (both fabrics and metallic meshes).
3. Greatest active filtering area for given space.
4. Radial Fin Insert Assembly—easily and quickly replaced, as a unit, in field.
5. "Slip-On" Filtering Medium easily changed or replaced in field.
6. "Swing-bolt" head construction for easy inspection and servicing.

Staynew Liquid Filter

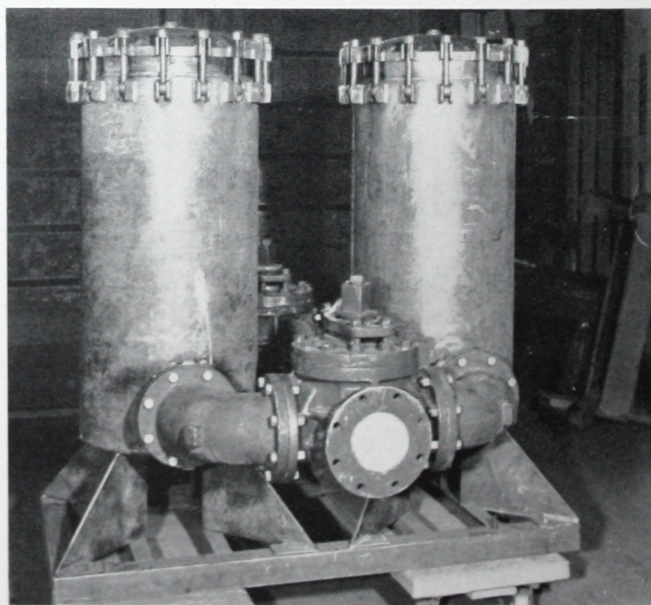
Model ELS



MODEL ELS

The design of these filters incorporate a number of unusual and exclusive features which have been described in detail on pages 24 and 25.

The standard models of ELS filters are made in various sizes, ranging from 2½ to 180 gallons per minute. The "01" size has a cast head, in which is located the inlet and outlet openings, and a seamless drawn steel shell. All other sizes up to and including the "5A" have both seamless drawn steel heads and shells. In these sizes the inlet and outlet connections are in the shell or base, close to the bottom and 180° apart. The larger sizes have fabricated steel shells with pressed steel bottoms and heads. Pipe connections are in the lower part of the shells. These sizes are fitted with supporting legs. All sizes are arranged for mounting in horizontal pipe lines. All sizes have "swing-bolt" head construction for quick and easy access to the interior. It is not necessary to break pipe connections to open them up for inspection or cleaning. Pipe connections can be supplied in the heads of those sizes which are of drawn steel when required. The housings of all sizes are designed for a maximum working pressure of 125 lb. gauge.



Dual Staynew filters (Model ELS) mounted on a common sub-base and arranged with inter-connecting piping and 3-way valves for continuous service.

An air vent is supplied in the head and a large drain connection in the base of each filter.

"Regular fitted" models have steel housings, inlet and outlet connections, and insert supporting members—all of steel construction. Insert parts are of steel and electro-galvanized metal. In the "bronze fitted" models all metal parts in contact with the filtered liquid are of brass or bronze. Inner surfaces of the steel housings in either case are coated with a corrosion resistant finish.

IMPORTANT—in order to make a proper liquid filter selection, the following information should be available.

1. Liquid to be filtered.
2. Temperature of liquid to be filtered.
3. Viscosity of liquid at operating temperatures.
4. Capacity of filter in gallons per minute (G.P.M.)
5. Operating or working pressure in pounds gauge.
6. Maximum pressure in pounds gauge.
7. Size and type of pipe connection required.
8. Duty . . . continuous or intermittent service.
9. Amount and type of solids to be filtered out.
10. Required efficiency. (Particles sizes to be removed when possible).
11. When liquid to be handled is corrosive include required material specifications when possible.



MODEL ELS
Large capacity

TABLE OF SIZES

Model	*Maximum Inlet and Outlet Connections Inches	*Maximum Capacity G.P.M. Basis Water	Filtering Area Sq. Ft.	Approximate Overall Dimensions—Inches		Approximate Shipping Wt. Lbs.
				Diameter	Height	
ELS-01	1/2	2.5	1.0	6	10	16
ELS-0	3/4	6.0	2.6	8	13	19
ELS-1	1	9.0	3.1	9 1/2	14	32
ELS-2	1 1/2	12.0	4.3	10 1/2	17	42
ELS-4	2	16.0	6.4	11 1/2	20	60
ELS-5	3	25.0	10.0	14	28	91
ELS-5A	3	40.0	15.0	14	28	95
ELS-6	4	50.0	20.1	15	49	355
ELS-6A	4	65.0	25.0	15	55	430
ELS-6B	4	85.0	34.0	15	65	485
ELS-7	4	115.0	46.0	18	65	647
ELS-7A	6	145.0	57.0	21	63	715
ELS-7B	6	180.0	69.0	21	68	810

*Capacity ratings based on normally clear water, WC-5-1 cotton medium, and not to exceed 2 lbs. gauge initial pressure drop. Pipe connections through 3" are female pipe threads. Pipe connections 4" and over are male pipe threads. Standard models designed for 125 lbs. working pressure.

PARTIAL LIST OF Filtering Media

Available for use with Staynew Liquid Filters

Because of their new "slip-on" insert feature, Staynew Liquid Filters offer a wider selection of filtering media than that of any other design. As a general guide to the selection of proper filtering media, a partial list of those readily available follows:

- WC-5-1** Woven cotton—free flowing, low resistance, low efficiency (dirt removal down to 30-40 micron particles), low cost. Suitable for filtering most coolants, quenching oils, and neutral to alkaline solutions. Good for maximum temperatures of around 250°F.
- WF-12** Wool felt—free flowing, low resistance, high efficiency (dirt removal down to 5-10 micron particles), medium cost, suitable for filtering hydraulic oils, fuel oils for oil burner service, and other neutral to slightly acid liquids. Good for maximum temperatures of 200°F.
- BWC** Dense woven cotton—slow flowing, medium resistance, high efficiency (dirt removal down to 8-10 micron particles), medium cost. Suitable for filtering liquid ammonia, cyanide solutions, other neutral to alkaline liquids. Good for maximum temperatures of about 250°F.
- Terry Cloth** Tufted cotton—free flowing, low resistance, medium efficiency. Used to remove oil from condensate intended for boiler feed water. Will remove oil from water down to 3 to 4 parts per million. Medium cost. Good for maximum temperature of 250°F.
- WRC-20** Felted mixture—medium flow rate, medium resistance, extremely high efficiency (dirt removal down to 2 microns or less), medium cost. Suitable for liquids of low to medium viscosity and temperatures to 200°F.
- Glastex (G-1)** Woven chemical glass—medium flow rate, medium resistance, medium efficiency (down to 15-20 microns). At extremely low flow rates—25% of maximum rating—the efficiency is approximately that of WF-12. Suitable for filtering most acids and a few alkaline solutions.
- Metallic Mesh** Woven wire of various materials—high flow rate, low resistance, low efficiency. Suitable in proper materials, for corrosive and hot liquids—where particularly high efficiency is not required. Expensive but durable and easily cleanable under most conditions.

Staynew Liquid Filter

Model SE

(SUMP TYPE)

Designed for use wherever dirty liquids are collected, filtered, and re-circulated, the Staynew Model SE Sump Type Liquid Filter meets the demand for a compact, simplified, efficient filter unit which can be mounted on the end of pump suction lines. An installation of this type protects the pump from abrasive particles which cause rapid wear and at the same time provides clean liquid at various points of usage. Features include the characteristic Staynew Radial Finned Insert and the new "Slip-On" construction. This makes possible the easy and inexpensive replacement of the filtering medium in the field. The "Slip-on" construction allows the use of practically any filtering media which can be crimped—fabrics, metallics or plastics. The filter is so simply designed that there are only four major parts (Figs. 1, 2, 3, 4). Compact, simple, extremely versatile in application the Model SE is low in cost, quickly installed and easily cleaned. It will provide maximum service with a minimum attention.

TABLE OF SIZES

Model Filter	Max. Pipe Conn. Inches	*Max. Capacity G.P.M. Basis Water	No. Inserts	Filtering Area Sq. Ft.	Approx. Overall Dimensions Inches		Approx. Shipping Weight Lbs.
					Diam.	**Hgt.	
SE-1	1	2.5	1	1.4	4 1/2	3	2 1/4
SE-2	1	3.5	1	1.8	4 1/2	4 1/4	2 3/4
SE-3	2	6.0	1	3.4	6 1/4	5 1/4	4
SE-5	2	8.0	1	4.3	6 1/4	6 1/4	5 1/2
SE-7	2 1/2	12.0	1	5.8	7 1/4	7 1/4	7
SE-10	3	18.0	1	9.7	12 1/4	7 1/2	15
SE-15	3	22.0	1	11.7	12 1/4	9	17 1/2
SE-20	3	28.0	1	14.3	12 1/4	11	19

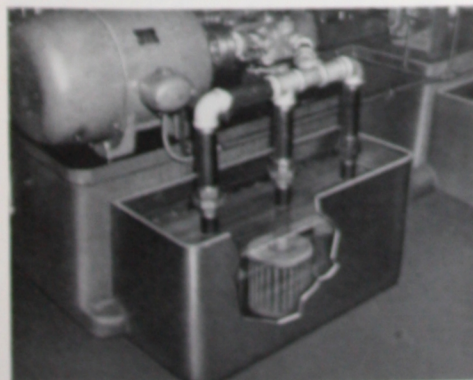
*Capacity ratings based on normally clear water, WC-5-1 cotton medium, and not to exceed 1/4 lb. initial pressure drop.

Regular Fitted Models—Cadmium plated steel construction; steel and electro-galvanized metal insert parts; WC-5-1 cotton filtering medium.

Bronze Fitted Models—All metal parts of brass or bronze; WC-5-1 filtering medium.

**Height does not include pipe connection.

Pipe connections are Female pipe thread.



One of a series of boring mills equipped with Model SE filters.



Model SE
Sectional View



Upper end plate mounting a threaded outlet connection with a perforated metal central supporting tube on which is mounted the Staynew Radial Fin filtering assembly.



Radial Fin filtering assembly — filtering medium "slip-on" to similarly shaped mesh supporting form.



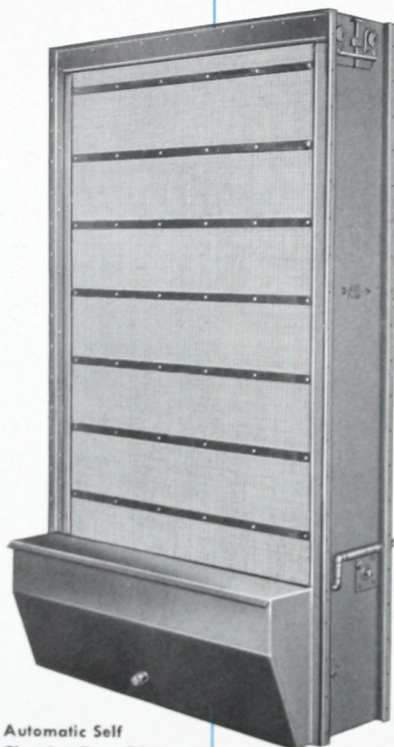
Lower end plate



Wing nut

Staynew Filters

for Ventilation and Air



Automatic Self
Cleaning Type Filter

Dust is everywhere. Even in sections remote from civilization and for miles above the earth's surface appreciable amounts of it are found. Dust laden air causes untold misery and damage every year, it effects human health, damages expensive machinery, soils and causes deterioration of furnishings, decorations, etc.

Dust concentrations vary from around .35 grains per thousand cubic feet in cities normally considered clean to as high as 2.5 grains in portions of cities surrounding or near steel mills and some other types of industrial plants. The average concentration seems to be around .55 to .65 grains. Taking .6 grains as an average this means that a ventilating system handling only 20,000 cubic feet of air per minute would collect almost a pound of air borne dust every eight hours.

All this, of course, is elementary, to the engineer concerned with the design of ventilating and air conditioning systems. To him it is apparent adequate provisions must be made in these systems for the removal of dust and soot.

A number of considerations enter into the selection of the type filter best suited to the particular installation such as, volume of air to be cleaned, allowable resistance, space available, degree of cleanliness required, and cost of operation. It should, at all times, be remembered that while

Clean air side of a bank of panel filters.

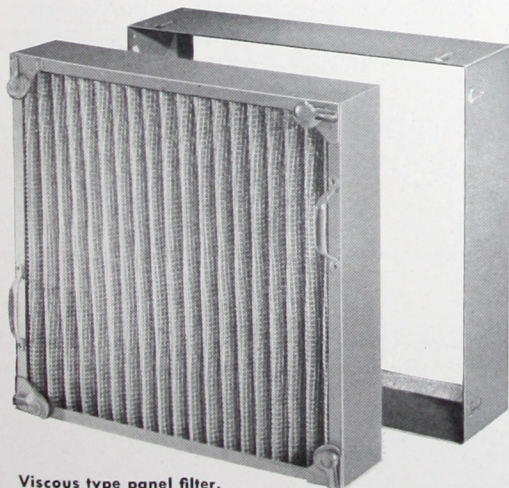


Dry type panel filter.

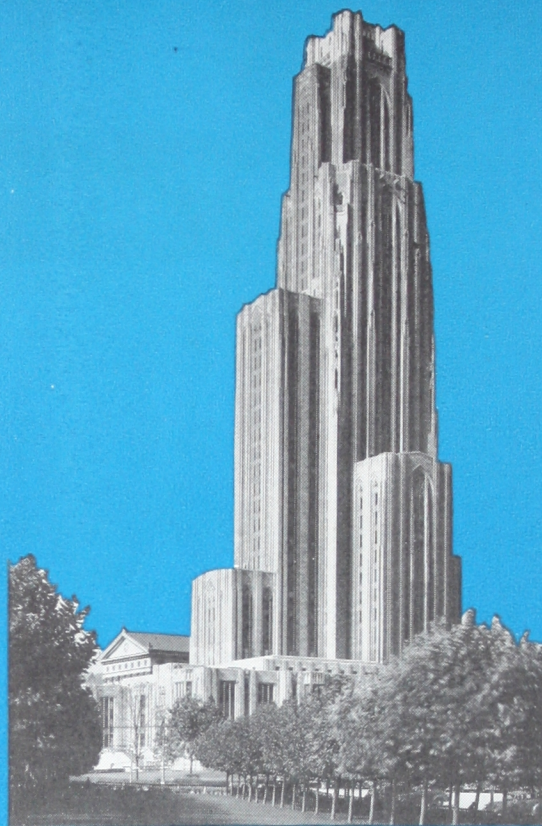
Air Conditioning

filters collect and control dust they do not dispose of it and therefore require systematic attention. Consideration should be given to the method and cost of maintenance required by the various types of filters.

Staynew Ventilation Filters are available in three general types—the automatic self-cleaning filter, the dry panel filter and the permanent washable viscous panel filter. The automatic self-cleaning filter is, in most cases, best adapted to the handling of large volumes of air. In large capacities its cost is little more than that of the manually serviced types and its maintenance materially less. The dry panel filter is best adapted to the handling of small to medium volumes of air carrying dry to moderately greasy dust and in climates subject to extremes of temperature or quick temperature changes. The permanent washable, viscous filter is adapted to the handling of air volumes comparable to that of the dry panel filter but should be used where the air carries relatively high percentages of oil or greasy dirt particles and where air temperatures can be maintained above 20°F.



Viscous type panel filter.



Staynew Automatic filters are installed in The Cathedral of Learning University of Pittsburgh. Charles Z. Clauder, architect, Stone and Webster, engineers and contractors.

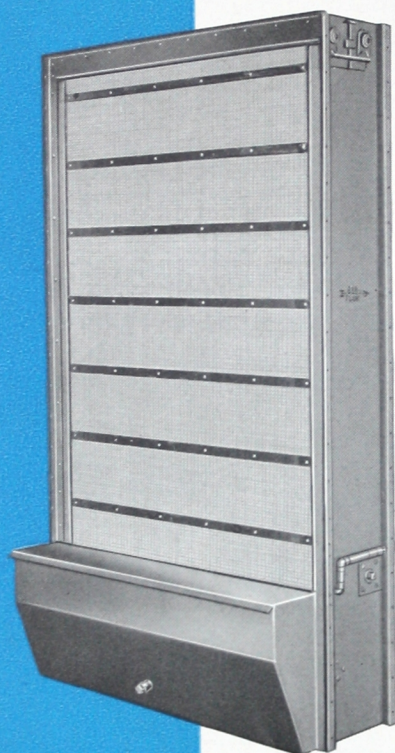
SOME OF *Many Uses*

DEPARTMENT STORES
OFFICE BUILDINGS
HOTELS
THEATRES
INDUSTRIAL PLANTS
HOSPITALS
BANKS
LIBRARIES
MUSEUMS

Staynew Ventilation Filter

Model A-3

AUTOMATIC SELF-CLEANING TYPE



MODEL A-3 AUTOMATIC

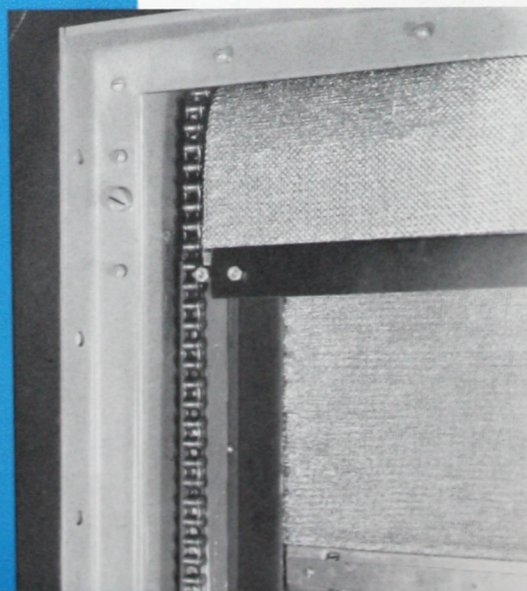
The Staynew Model A-3 Self-Cleaning Air Filter is a development of Dollinger Engineers incorporating the advantages of the original Model A design with the addition of a number of new features. These result in still higher dust removal efficiency, greater dirt handling ability, improved Air Brush conditioning of the curtains, and a number of others which will be described in detail on this and the following pages.

The Model A-3 filter has been designed to meet the requirements of a wide variety of conditions each calling for some particular outstanding ability such as large dust handling capacity, low resistance, high efficiency or a combination of two or more of these features, in a single unit. Dollinger Engineers have successfully met these exacting requirements, by developing two interchangeable filter curtain designs. One design, designated as the Type HD, provides exceptional dust handling ability. The other, designated as the Type HE, provides unusually high dust arrestance efficiency. Both maintain low resistance to air flow consistent with performance requirements.

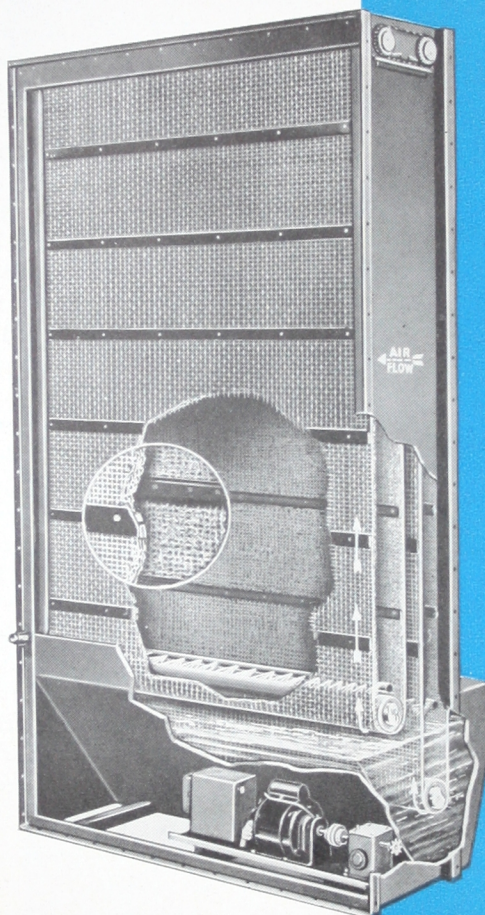
SUGGESTED SPECIFICATIONS

Air filters shall be Staynew Model A-3 self cleaning, traveling curtain type as manufactured by Dollinger Corporation, Rochester, New York. They shall be of a size to filter the specified volume of air with an efficiency of not less than 75% by the U. S. Bureau of Standards dust spot test method. The average operating resistance to air flow shall not exceed .36" W.G. at 500 F.P.M. face velocity. The filters shall be furnished complete with motor drives, automatic time switch and an initial filling of Pingene filter oil. A sludge pan shall be provided with each filter section.

Section of Model A-3 filter curtain with one panel removed showing outer and inner surfaces of the curtain, method of attaching to roller chain and panel seal strip.



1. Highest efficiency of any mechanical type automatic filter.
2. Exceptionally large dust handling ability.
3. Compressed "air conditioning" of filter curtains.
4. Double filter curtains.
5. Direction of curtain travel is such that *cleaned* panels are always on down stream or filtered air side.
6. Absolutely no oil entrainment in air stream.
7. Ball-bearing curtain roller.
8. Heavy "roller type" curtain chains.
9. "Shear pin" protection of moving parts.
10. Momentary contact time-clock by-pass switch.
11. Motor and control unit mounted on *clean* side of filter.
12. Combination gear and roller chain drive. (No belts to slip).



Cutaway view Model
A-3 Automatic.



Part of a large order of
Model A-3 automatic
filters in various stages
of construction.

Staynew Automatic Filter

FOR LARGE AIR VOLUMES

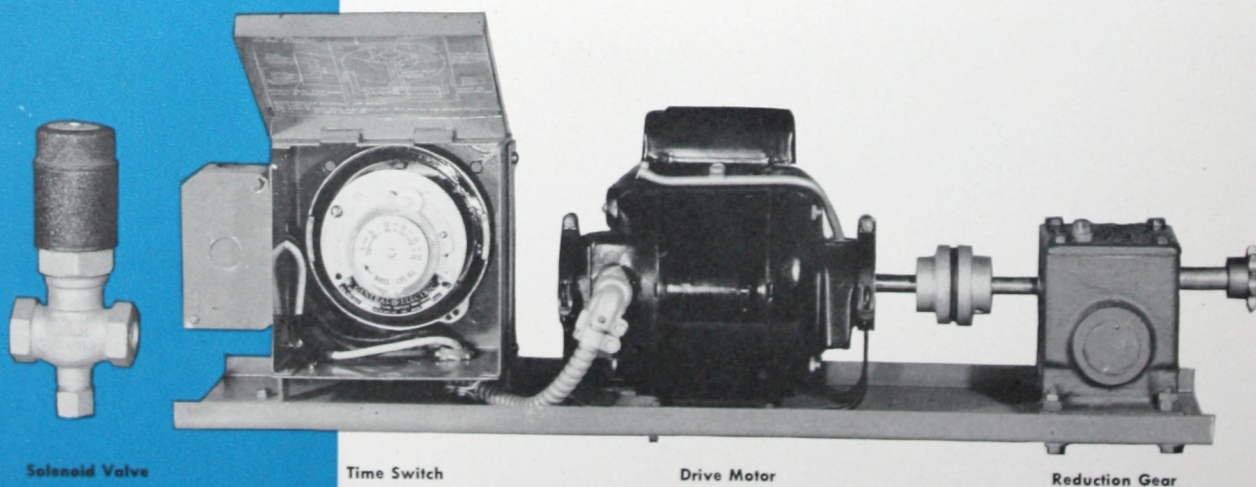


Clean or air leaving side of a 2½ section Model A-3 automatic filter of 48,000 C. F. M. capacity. Note sheltered, yet easily accessible control and drive unit.

Staynew Model A-3 filters are specifically designed for both average ventilation and air conditioning and heavy duty industrial service where relatively large volumes of air are to be filtered.

The filtering elements of the Model A-3 consist of two endless curtains carried on roller chains which are in turn driven by sprockets keyed to the shafts of the curtain rollers. These rollers float on ball bearings. The curtains are made up of a number of removable panels each comprising a single layer of bronze screen cloth to which is attached layers of woven copper mesh. The bronze screen is always on the air entering side of the curtain and acts as a lint trap while the inner woven mesh provides a large impingement area for the retention of dust particles. The first curtain is the denser of the two and acts as the filtering element. It travels thru the oil bath for periodic cleaning. The second curtain does not enter the oil bath but acts as a safeguard against oil entrainment in the filtered air stream. This construction permits the filter curtain to be rotated so that the panels on the dirty air side move downward into the oil bath and are cleaned before rising upward on the clean air side.

The filter drive and control mechanism consists of a ⅓ H.P. motor driving through and directly connected to a reduction gear, a time switch and a momentary contact by-pass switch—all mounted on a common base plate. A solenoid



Solenoid Valve

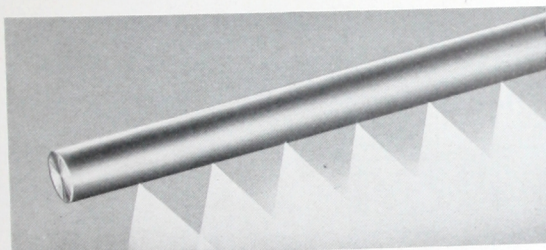
Time Switch

Drive Motor

Reduction Gear

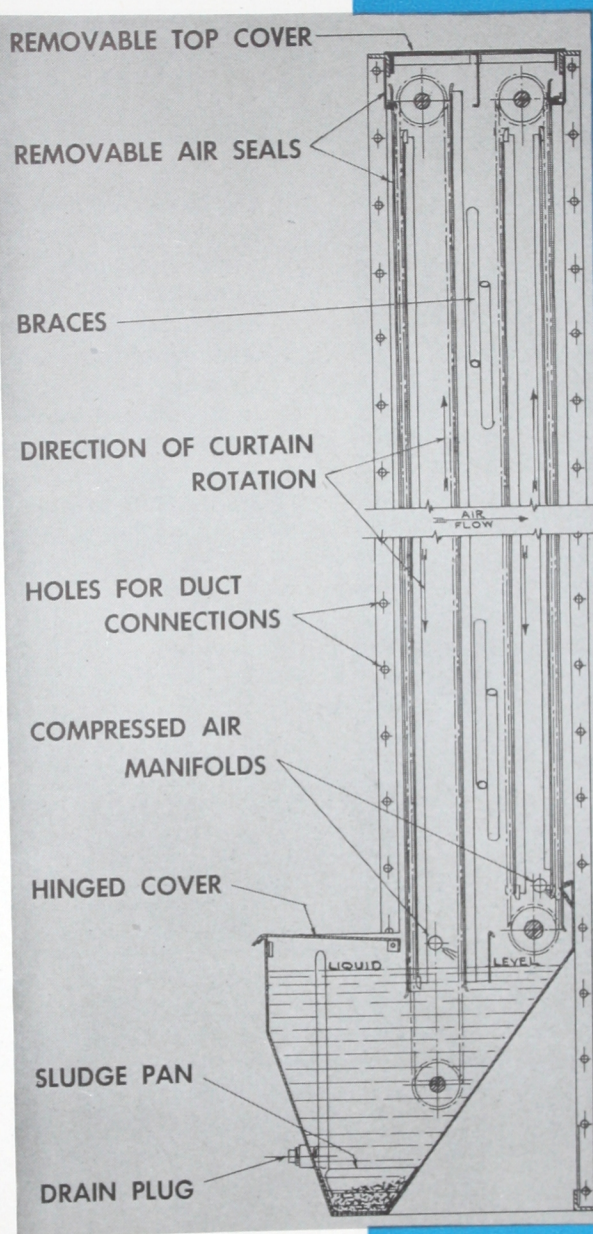
MES AND HEAVY DUST LOADS . . .

valve operates the compressed air jets simultaneously with the movement of the filter curtains. Each drive unit operates up to and including four filter sections. The momentary contact by-pass switch provides manual control of the curtains and air jets for inspection and testing. A shear pin in the hub of the drive pinion on the reduction gear provides protection for all moving parts.



Close-up of a section of compressed air manifold which shows the Air Brush principle of conditioning the filter curtains.

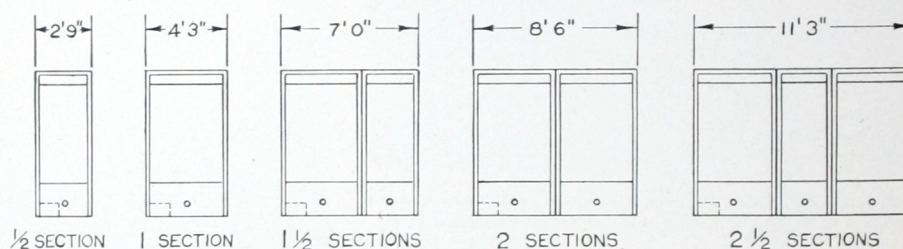
A patented Staynew feature the Air Brush conditioner contributes greatly to the superior performance of the Model A-3. These air brushes direct jets of compressed air at about $1\frac{1}{2}$ lbs. gauge pressure through the curtain panels just before they enter the main air stream and prevent excessive amounts of oil from remaining on the curtains. Thus the performance of this filter, unlike all other filters, is independent of natural oil drainage. The performance of filters dependent on natural drainage varies with air temperature changes affecting the viscosity of the oil.



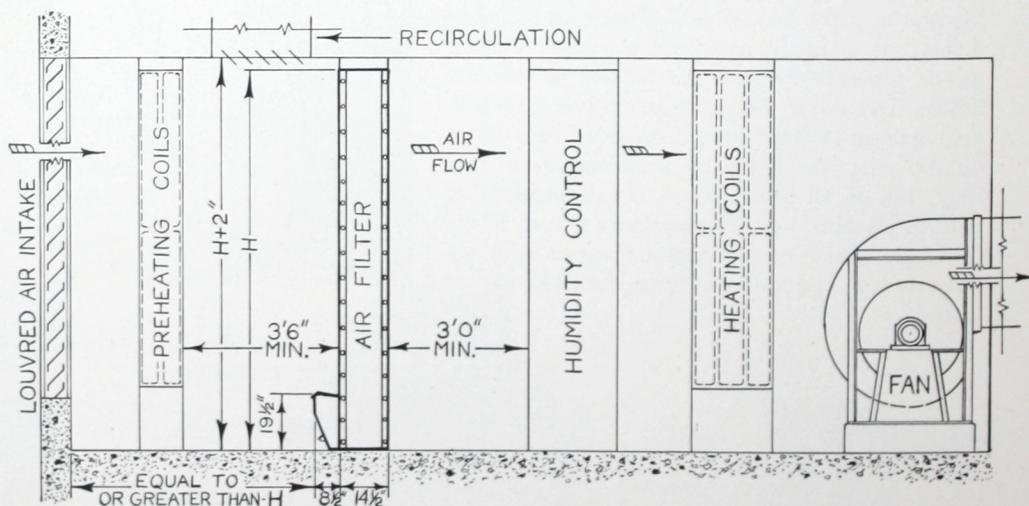
Sectional view illustrates general construction and operation of the Model A-3 Automatic Filter. Note direction of curtain travel resulting in cleaned panels on the filtered air side.

Staynew Automatic Filter

The Model A-3 filter is made up of a section or sections, various combinations of which, may be bolted together to form a unit of any desired air handling capacity. These sections are made in two widths—4'3" and 2'9" known as "full" and "half widths" respectively. Both are available in heights ranging upward in increments of 3" from 4 to 14 feet. They are made up of two channel shaped side plates of 10 gauge steel, supported by heavy angle type top and bottom horizontal members, with the whole rigidly braced by tubular struts and the entire assembly welded into a rugged unit. The oil reservoir is made up of 12 gauge sheets, reinforced and welded into place forming and becoming a part of the filter base. The oil reservoir is fitted with a large drain connection and a sludge pan for quick removal of sludge accumulations.



Arrangements of Model A-3 Filter Sections.



Typical cross sectional layout of equipment used in a complete central air conditioning system.

CAPACITY AND DIMENSION TABLE—MODEL A-3 AUTOMATIC FILTERS

Capacities in cubic feet per minute (C.F.M.) are based on a normal rated air velocity of 500 feet per minute (theoretical) through the filter curtains. Dimensions are overall for filter, duct connections and drive units. To indicate the size filter unit required designate the width in number of sections, followed by a dash and the height number as follows: 4½-99 (19'9" wide by 8'3" high, capacity 52,200 C.F.M.). Required combinations not listed should be referred to Factory.

Overall Height	NUMBER OF SECTIONS															Height Number
	½	1	1½	2	2½	3	3½	4	4½	5	5½	6	6½	7		
	OVERALL WIDTH															
	2'-9"	4'-3"	7'-0"	8'-6"	11'-3"	12'-9"	15'-6"	17'-0"	19'-9"	21'-3"	24'-0"	25'-6"	28'-3"	29'-9"		
5'-0"	3,150	5,250													60	
5'-3"	3,400	5,700													63	
5'-6"	3,700	6,200													66	
5'-9"	4,000	6,650													69	
6'-0"	4,250	7,100	11,350	14,200											72	
6'-3"	4,500	7,550	12,100	15,100											75	
6'-6"	4,800	8,000	12,800	16,000											78	
6'-9"	5,100	8,500	13,600	17,000											81	
7'-0"	5,400	9,000	14,400	18,000	23,400	27,000									84	
7'-3"	5,650	9,450	15,100	18,900	24,500	28,300									87	
7'-6"	6,000	9,900	15,900	19,800	25,800	29,700									90	
7'-9"	6,250	10,400	16,650	20,800	27,000	31,200									93	
8'-0"	6,500	10,900	17,400	21,700	28,200	32,500	39,000	43,400	49,900	54,300	60,800	65,100			96	
8'-3"	6,800	11,350	18,200	22,700	29,500	34,100	40,900	45,400	52,200	56,800	63,600	68,000			99	
8'-6"	7,000	11,800	18,800	23,600	30,600	35,400	42,400	47,200	54,200	59,000	66,000	70,800			102	
8'-9"	7,300	12,250	19,600	24,500	31,500	36,700	44,100	49,000	56,300	61,300	68,600	73,600			105	
9'-0"	7,600	12,750	20,400	25,500	33,100	38,300	45,900	51,000	58,600	63,800	71,400	76,500	84,100	89,250	108	
9'-3"	7,900	13,200	21,100	26,400	34,300	39,600	47,500	52,800	60,700	66,000	73,900	79,200	87,100	92,400	111	
9'-6"	8,150	13,650	21,800	27,300	35,500	41,000	49,200	54,600	62,800	68,300	76,500	81,900	90,050	95,550	114	
9'-9"	8,450	14,150	22,600	28,300	36,800	42,500	51,000	56,800	65,100	70,800	79,200	84,900	93,350	99,050	117	
10'-0"	8,750	14,600	23,400	29,200	38,000	43,800	52,600	58,400	67,200	73,000	81,800	87,600	96,350	102,200	120	
10'-3"	9,000	15,100	24,100	30,200	39,200	45,300	54,300	60,400	69,400	75,500	84,500	90,600	99,600	105,700	123	
10'-6"	9,300	15,500	24,800	31,000	40,300	46,500	55,800	62,000	71,300	77,500	86,800	93,000	102,300	108,500	126	
10'-9"	9,600	16,000	25,500	32,000	41,600	48,000	57,600	64,000	73,600	80,000	89,600	96,000	105,600	112,000	129	
11'-0"	9,850	16,500	26,400	33,000	42,900	49,500	59,400	66,000	75,900	82,500	92,400	99,000	108,850	115,500	132	
11'-3"	10,150	16,950	27,100	33,900	44,100	50,900	61,100	67,800	78,000	84,800	95,000	101,500	111,650	118,650	135	
11'-6"	10,400	17,400	27,800	34,800	45,200	52,200	62,600	69,000	80,000	87,000	97,400	104,500	114,900	121,800	138	
11'-9"	10,700	17,900	28,600	35,800	46,500	53,700	64,400	71,600	82,300	89,500	100,000	107,500	118,200	125,300	141	
12'-0"	11,000	18,350	29,400	36,700	47,700	55,100	66,100	73,400	84,400	91,800	102,600	110,000	121,000	128,450	144	
12'-3"	11,250	18,800	30,100	37,600	48,900	56,400	67,700	75,200	86,500	94,000	105,300	112,800	124,050	131,600	147	
12'-6"	11,550	19,250	30,800	38,500	50,100	57,800	69,400	77,000	88,600	96,300	107,900	115,600	127,150	134,750	150	
12'-9"	11,800	19,750	31,600	39,500	51,300	59,200	71,000	79,000	90,800	98,800	110,500	118,500	130,300	138,250	153	
13'-0"	12,100	20,200	32,200	40,400	52,500	60,600	72,700	80,800	92,900	101,000	113,100	121,000	133,100	141,400	156	
13'-3"	12,400	20,650	32,900	41,300	53,700	62,000	74,400	82,600	95,000	103,300	115,700	123,700	136,100	144,550	159	
13'-6"	12,700	21,100	33,800	42,200	54,900	63,400	76,000	84,400	97,100	105,600	118,300	126,400	139,100	147,700	162	
13'-9"	13,000	21,500	34,500	43,000	56,100	64,800	77,700	86,200	99,200	107,900	120,900	129,100	142,100	150,500	165	
14'-0"	13,250	21,950	35,200	43,900	57,300	66,200	79,400	88,000	101,300	110,200	123,500	131,800	145,050	153,650	168	

PERFORMANCE DATA

Dust Arrestance Efficiency

Type HD Panels—

Bureau of Standards Test Method. 75%

Type HE Panels—

Bureau of Standards Test Method. 80%

Average Operating Resistance

Type HD Panels.36" W.G.

Type HE Panels.40" W.G.

Pingene Capacity—

Full Width Sections (4'-3") 45 gallons

Half Width Sections (2'-9") 28 gallons

NET AND SHIPPING WEIGHTS

Overall	Half Sections		Full Sections		Overall	Half Sections		Full Sections	
Height	Net	Ship.	Net	Ship.	Height	Net	Ship.	Net	Ship.
4'	332	425	448	625	10'	578	725	733	925
5'	373	475	495	675	11'	619	775	780	975
6'	414	525	543	725	12'	660	825	828	1025
7'	455	575	590	775	13'	701	875	875	1075
8'	496	625	638	825	14'	742	925	923	1125
9'	537	675	685	875					

Weights listed do not include filter oil or drive and control units.

Pingene filter oil weighs approximately 7½ lbs. per gallon.

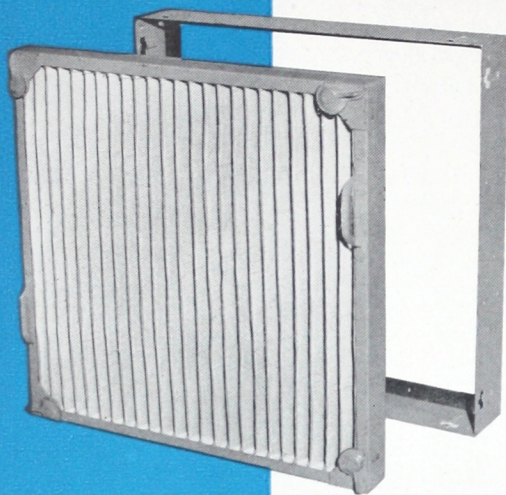
A drive and control unit weighs approximately 60 lbs.

Add the weight of one drive and control unit for every four filter sections or less making up a complete filter unit.

Staynew Ventilation Filter

Model WKE

(DRY PANEL TYPE)



MODEL WKE-2
2" deep unit

The Model WKE dry panel filter has been specifically designed for heavy duty industrial applications. Its features will appeal especially to ventilation and air conditioning engineers seeking a filter offering a wide variety of filtering media and one inexpensive and easy to maintain.

This panel filter is offered in a number of standard sizes and in both 2 and 4 inch depths, identified as Models WKE-2 and WKE-4 respectively. Standard construction includes four cam type locking latches and two lifting handles. The box portion of the WKE cells are fitted with electroplated steel screen crimped to form a series of fins. This screen cloth is *permanently* mounted in the box. Over this screen cloth and on the dirty or air-entering side of the cell fits a preformed filtering element backed up by electroplated screen cloth. This element is crimped to correspond to the form of the permanent screen. It is fitted in the cell so that the filtering medium lies *between* the heavy permanent form and the light back-up screen cloth. This construction provides steel mesh on *both* sides of the filtering medium making it fire resistant. It also protects even the most fragile medium from damage by a vacuum cleaning tool. This feature is exclusive with the WKE design. The fact that the medium used *can be cleaned* satisfactorily and can be replaced *easily, quickly, and cheaply*, when necessary, makes for extremely economical overall filter maintenance.

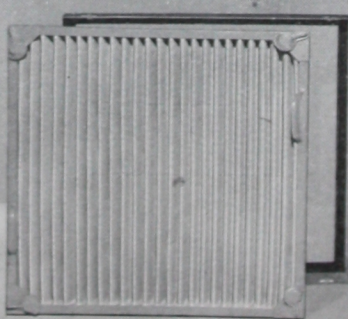
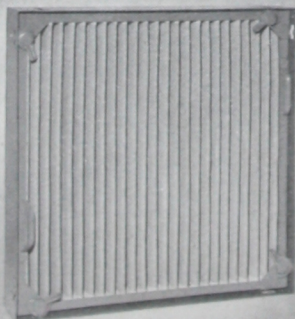
The design permits the use of a wide variety and type of filtering media, in fact, practically any medium that can be obtained in sheet form and can be crimped is usable. A great deal of care has been given to the proper spacing

38

Supporting frame with cell in place and secured by spring-loaded locking cams. Frames are drilled for riveting together to form a flat bank, or by the use of angles, a series of "V's."

Cell is removed from its supporting frame by releasing locking cams and lifting out by its sturdy offset handles.

Cleaning is simple and easy with Staynew saddle type vacuum cleaning nozzle.



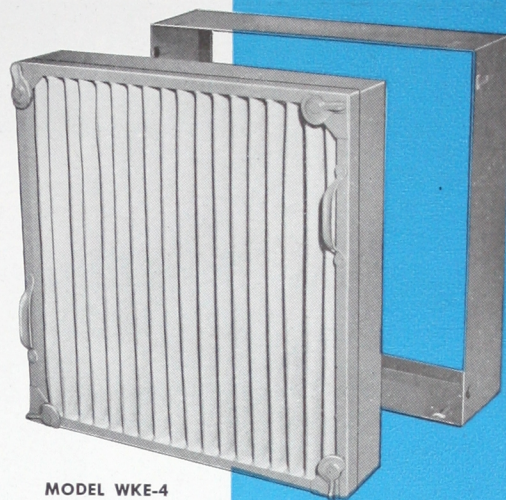
Removing filter or replacing by releasing

of the fins so as to obtain a maximum of filtering area, consistent with high dust-holding capacity, low resistance, and ease of servicing.

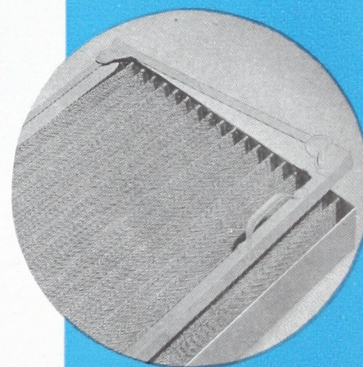
Replacement media comes cut to size and crimped, ready for installation, and practically drops into place in the cell. Clean media can be carried to the location of the cell bank and replacements made there, thus eliminating in many cases troublesome and costly transportation of bulky cells to the service shop.

Outstanding Features:

1. Greater filtering area, size for size, than competitive panels.
2. Construction permits wide selection of filtering media.
3. Highly flame resistant—with B-G medium, Fire Underwriters Class I approval.
4. Wire screen cloth front and back of medium eliminates "sagging" and protects it so that even the most fragile materials can be cleaned over and over again.
5. Can be effectively vacuum cleaned—no dirt, no mess.
6. Can be cleaned quicker than any other type panel.
7. Can be washed or dry cleaned when necessary. (Filtering medium must be of material which will stand this procedure.)
8. Medium can be replaced quicker than in any other type panel.



MODEL WKE-4
4" deep unit



Any possibility of air leakage around the filtering medium is prevented by labyrinth type seals at the ends of the fins and overlapping seals attached to the opposite sides of the cell cover.

TABLE OF SIZES

TABLE OF SIZES											
*Nominal Size Filter	**Capacity Ratings C.F.M. Equivalent Air Velocity F.P.M.				Active Filtrg. Area Sq. Ft.	Approx. Weights—Pounds					
	Normal		Maximum			Net Wt.			Shipping Wt.		
	C.F.M.	F.P.M.	C.F.M.	F.P.M.		Cell	Frame	In- sert	Comp. Frame Unit	Cell Only	Insert Only
16x20x2	440	40	660	60	11.0	11 ½	4 ½	2	17	12 ½	2 ½
16x25x2	530	40	800	60	13.3	14 ½	5 ¼	2 ½	20 ¾	15 ½	3
20x20x2	530	40	800	60	13.3	14 ½	5 ¼	2 ½	20 ¾	15 ½	3
20x25x2	670	40	1000	60	16.7	18	5 ¾	3	24	19 ¼	3 ¾
20x20x4	600	30	800	40	20.0	24 ¼	10 ½	4 ½	40 ½	29	5
20x25x4	750	30	1000	40	25.0	26 ½	11 ¾	5 ¼	45 ¼	32	6 ¼
24x24x4	900	30	1200	40	30.0	28 ¼	12 ¼	6 ½	48 ½	34	7 ¾
*See page 42 for Installation Data and actual filter dimensions.											
**Refer to Filter Selection Chart page 43.											

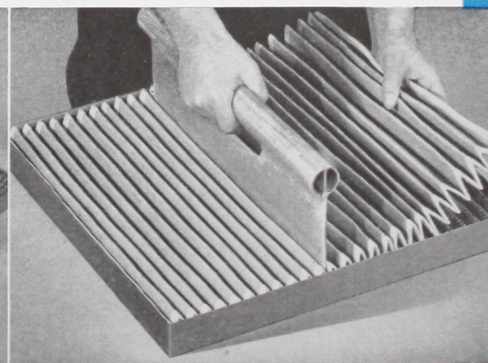
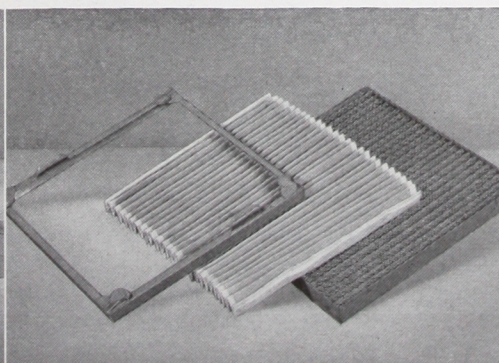
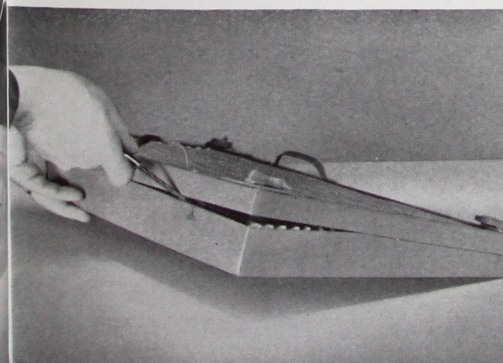
*See page 42 for Installation Data and actual filter dimensions.

**Refer to Filter Selection Chart page 43.

Removing filter medium for dry cleaning, washing, or replacing is equally simple. Remove cell cover by releasing snap catches. Lift out medium.

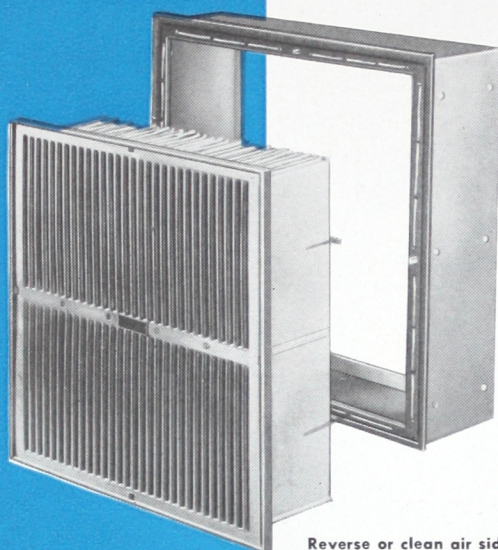
Disassembled cell showing removable cover, filtering medium and box containing permanent fin support. Note how screen cloth protects filtering medium.

Use of the special Staynew Loading Knife for replacing or renewing filtering medium.

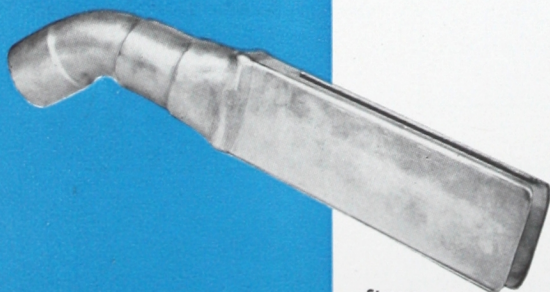


Staynew Ventilation Filter

Protectomotor Panel



Reverse or clean air side showing cell removed from frame.



Staynew Vacuum Cleaning Nozzle.

The Protectomotor Panel is the highest grade dry type air filter offered for ventilation and air conditioning service. The panel proper consists of a series of sixty (60) rust resisting reinforced wire mesh fins 6" deep, arranged in two rows of thirty fins each. These fins are covered with a special felted filtering medium. The finned filter element is supported by slotted metal grates held together by four slides on the dovetailed edges of the grates. A removable spacing number on each row of fins assures uniform distribution of air flow. The filter unit fits into a steel supporting panel of channel construction all four sides of which have accurately spaced perforations for joining one frame directly to another. A heavy felt insulating strip which contacts the inserted panel filter grate, also provides a dust-tight seal with adjoining frames or wall. It is furnished in a single standard size as listed below.

Outstanding Design Features:

1. Greater filtering area per cubic foot of space occupied than any other design.
2. Can be cleaned repeatedly without damage to filtering medium by use of the special vacuum cleaning nozzle illustrated on this page.
3. Long life of filtering medium. Records show as much as twelve years service without replacement.
4. Requires no special framework. Panels bolt directly together to form filter bank.

SUGGESTED SPECIFICATIONS

Frame Dimensions (overall)	20" x 20" x 7"
Filter Cell Dimensions (overall)	19 1/2" x 19 1/2" x 6 3/8"
Filtering Area	42 Sq. Ft.
*Maximum Capacity Rating	800 C.F.M.
Normal Capacity Rating	600 C.F.M.
Approx. Shipping Wt. (Complete Frame Unit)	33 Lbs.
Approx. Shipping Wt. (Cell Only)	18 Lbs.

*Refer to Filter Selection chart page 43.

Staynew Ventilation Filter

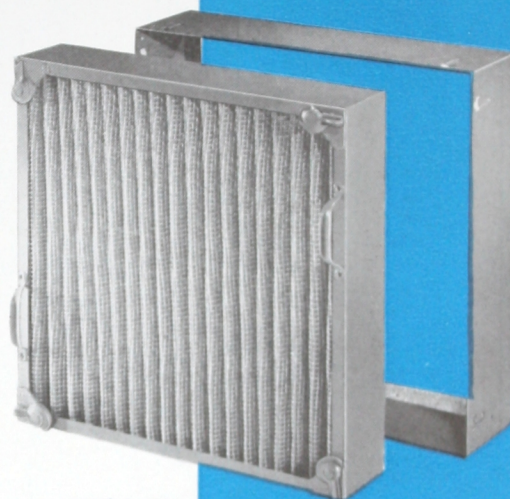
Model DPV

(VISCIOUS PANEL FILTERS)

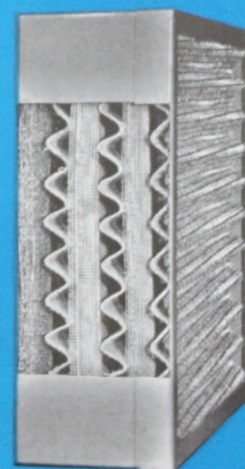
The Model DPV is a permanent type viscous panel designed for application in ventilation and air-conditioning systems in heavy duty industrial service. The filtering media consist of a series of crimped layers of galvanized screen cloth and woven mesh. The media are so arranged to provide a maximum of impingement surfaces providing six (6) stages of cleaning in the 4" deep unit and three (3) stages in the 2" deep unit. These media when coated with PD-10 Pingene Filter Oil form an unusually efficient filter and as arranged insure maximum dust holding capacity. As designed, the media also provide for ease of cleaning not often found in this type unit.

The cells are unusually heavy, being made up of 18-gauge steel, and are fitted with handles and four cam-type locking latches which hold it tightly in place in its box-type supporting frame, thus positively sealing the unit against air leakage. The frames of the 4" deep DPV units are of 14 gauge, and those of the 2" deep units of 14 gauge steel. They are drilled so that they can be riveted together to form a flat bank or by the addition of suitable angle up-rights into a "V" or staggered arrangement.

It is important that air should pass through the cell in the proper direction. Normally filter cells are removed from the air-entering or dirty side of the filter bank. For this reason handles and locking latches on the "standard" units are placed on the air-entering side. "Reverse Pack" units with handles and latches on the air-leaving side can be furnished when specified.



MODEL DPV



Sectional view showing crimped layers of filtering media.

TABLE OF SIZES

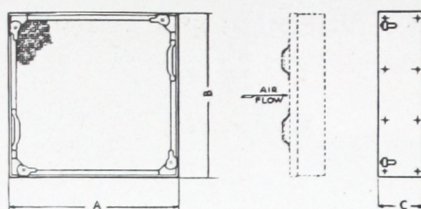
*Nominal Size Filter	Capacity Rating C.F.M.	Initial Resistance Inches W.G.	Approx. Weights—Pounds			
			Net Wt.		Shipp'g Wt.	
			Cell	Frame	Complete Frame Unit	Cell Only
16x20x2	650	.08	8¾	4½	16	10
20x20x2	800	.08	11	5¼	19½	13
20x25x2	1000	.08	12½	5¾	22	15
16x20x4	650	.10	15½	9½	30	18½
20x20x4	800	.10	19	10½	36	23
20x25x4	1000	.10	25	11¾	44	30

Filter cells are charged with Pingene filter oil before shipment. Pingene filter oil is supplied in 5-gallon containers and 55-gallon drums. Rivets for attaching supporting frames together or to ducts are supplied with all frames or complete frame units.

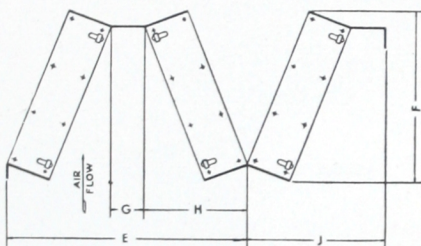
*See page 42 for Installation Data and actual filter dimensions.

INSTALLATION DATA

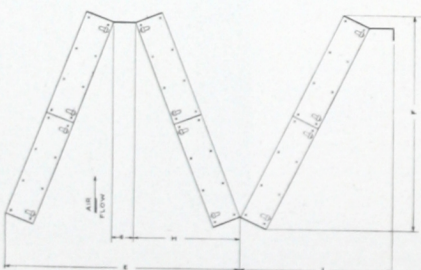
Models WKE and DPV Panel Filters



Standard arrangement is Flat Bank. Multiply dimension "A" by number cells in horizontal run of bank and "B" by number in vertical run of bank to get total space requirements. Provide access space of at least 30" on side from which cells are to be serviced.



Multiply dimension "E" by number of "V's" and dimension "B" (Fig. 1) by number of cells in vertical run of bank to get minimum space requirements.



Multiply dimension "E" by number of "V's" and dimension "B" (Fig. 1) by number of cells in vertical run of bank to get minimum space requirements.

Units are assembled by riveting frames together. Joints should be caulked with putty or sealed with felt strips.

DETAIL OF FRAMES

Nominal Filter Size Inches	Dimensions—Inches		
	A	B	C
	Fig. 1	Fig. 1	Fig. 1
16x20x2	16 20	20 16	3 3/8 3 3/8
16x25x2	16 25	25 16	3 3/8 3 3/8
20x20x2	20 —	20 —	3 3/8 —
20x25x2	20 25	25 20	3 3/8 3 3/8
20x20x4	20 —	20 —	5 3/8 —
20x25x4	20 25	25 20	5 3/8 5 3/8
24x24x4	24 —	24 —	5 3/8 —

DETAIL OF "V" ARRANGEMENT

Nominal Filter Size Inches	Dimensions—Inches							
	A	B	C	E	F	G	H	J
	Fig. 1	Fig. 1	Fig. 1	Fig. 2	Fig. 2	Fig. 2	Fig. 2	Fig. 2
16x20x2	16 20	20 16	3 3/8 3 3/8	22 23 1/2	16 19 3/4	3 3	9 1/2 10 1/4	12 1/2 13 1/4
16x25x2	16 25	25 16	3 3/8 3 3/8	22 27	16 24 3/4	3 3	9 1/2 12	12 1/2 15
20x20x2	20 —	20 —	3 3/8 —	23 1/2 —	19 3/4 —	3 —	10 1/4 —	13 1/4 —
20x25x2	20 25	25 20	3 3/8 3 3/8	23 1/2 27	19 3/4 24 3/4	3 3	10 1/4 12	13 1/4 15
20x20x4	20 —	20 —	5 3/8 —	28 1/2 —	20 1/2 —	4 —	12 1/4 —	16 1/4 —
20x25x4	20 25	25 20	5 3/8 5 3/8	28 1/2 32	20 1/2 25 1/2	4 4	12 1/4 14	16 1/4 18
24x24x4	24 —	24 —	5 3/8 —	31 —	24 1/2 —	4 —	13 1/2 —	17 1/2 —

DETAIL OF "V" ARRANGEMENT

Nominal Filter Size Inches	Dimensions—Inches							
	A	B	C	E	F	G	H	J
	Fig. 1	Fig. 1	Fig. 1	Fig. 3	Fig. 3	Fig. 3	Fig. 3	Fig. 3
16x20x2	16 20	20 16	3 3/8" 3 3/8"	34" 38"	31" 39"	3" 3"	15 3/4" 17 1/2"	19 3/4" 21 1/2"
16x25x2	16 25	25 16	3 3/8" 3 3/8"	34" 44"	31" 48 3/4"	3" 3"	15 3/4" 20 1/2"	19 3/4" 24 1/2"
20x20x2	20 —	20 —	3 3/8" —	38" —	39" —	3" —	17 1/2" —	21 1/2" —
20x25x2	20 25	25 20	3 3/8" 3 3/8"	38" 44"	39" 48 3/4"	3" 3"	17 1/2" 20 1/2"	21 1/2" 24 1/2"
20x20x4	20 —	20 —	5 3/8" —	43 1/2" —	39 1/2" —	4" —	19 3/4" —	24 3/4" —
20x25x4	20 25	25 20	5 3/8" 5 3/8"	43 1/2" 50 1/2"	39" 49"	4" 4"	17 1/2" 23 1/4"	22 1/2" 28 1/4"
24x24x4	24 —	24 —	5 3/8" —	49" —	46 3/4" —	4" —	22 1/2" —	27 1/2" —

FILTER SELECTION CHART FOR Dry Type Filters

Dry-type filters do not depend upon rather closely held air velocities to impinge air-borne dust upon the surface of the filtering medium as do oil bath and viscous types. They can and should be selected with filtering areas proportional to continuity of service and dust concentration in order to keep servicing costs at a minimum.

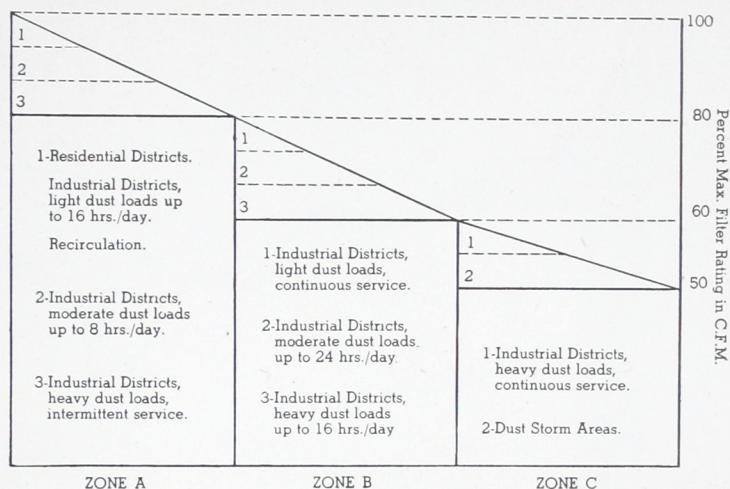
The following chart has been worked out as a guide to the most economical installation from the standpoint of maintenance as well as initial cost.

Selection Example:

Required—filter installation for an Industrial District, continuous service but with light dust load. This falls under Zone B, Item 1, on the chart. Refer to the upper or lined section where it will be noted the corresponding Number 1 ranges between 75% and 80%. Thus a filter or filters should be selected, which, when handling the maximum air requirements, operates at not over 75-80% of maximum rating.

Assume Max. air requirement to be 750 C.F.M.

$$\frac{750}{.75} = 1000 \text{ C.F.M. required filter rating.}$$



INITIAL RESISTANCE CURVES WKE Panel Filters Various Media

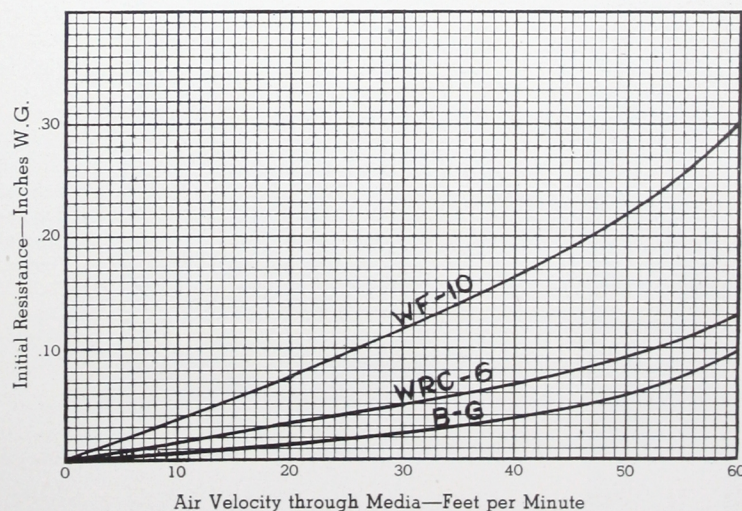
To determine initial resistance, assume a 24" x 24" x 4" cell fitted with WF-10 medium and to be operated at 900 CFM has been selected.

$$\frac{\text{Cell rating in C.F.M.}}{\text{Filtering area Square Ft.}} = \text{Air Velocity F.P.M.}$$

Therefore:

$$\frac{900 \text{ C.F.M.}}{30 \text{ Sq. Ft.}} = 30 \text{ F.P.M. velocity}$$

Referring to curve, WF-10 medium at 30 F.P.M. velocity has an initial resistance of .12 inches of water.



Above curves apply to all sizes and depths of WKE panels at various air velocities as shown.



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